A Bimonthly Report from The Conference Board

INTERNATIONAL ECONOMIC SCOREBOARD

The Conference Board

OCTOBER 1982

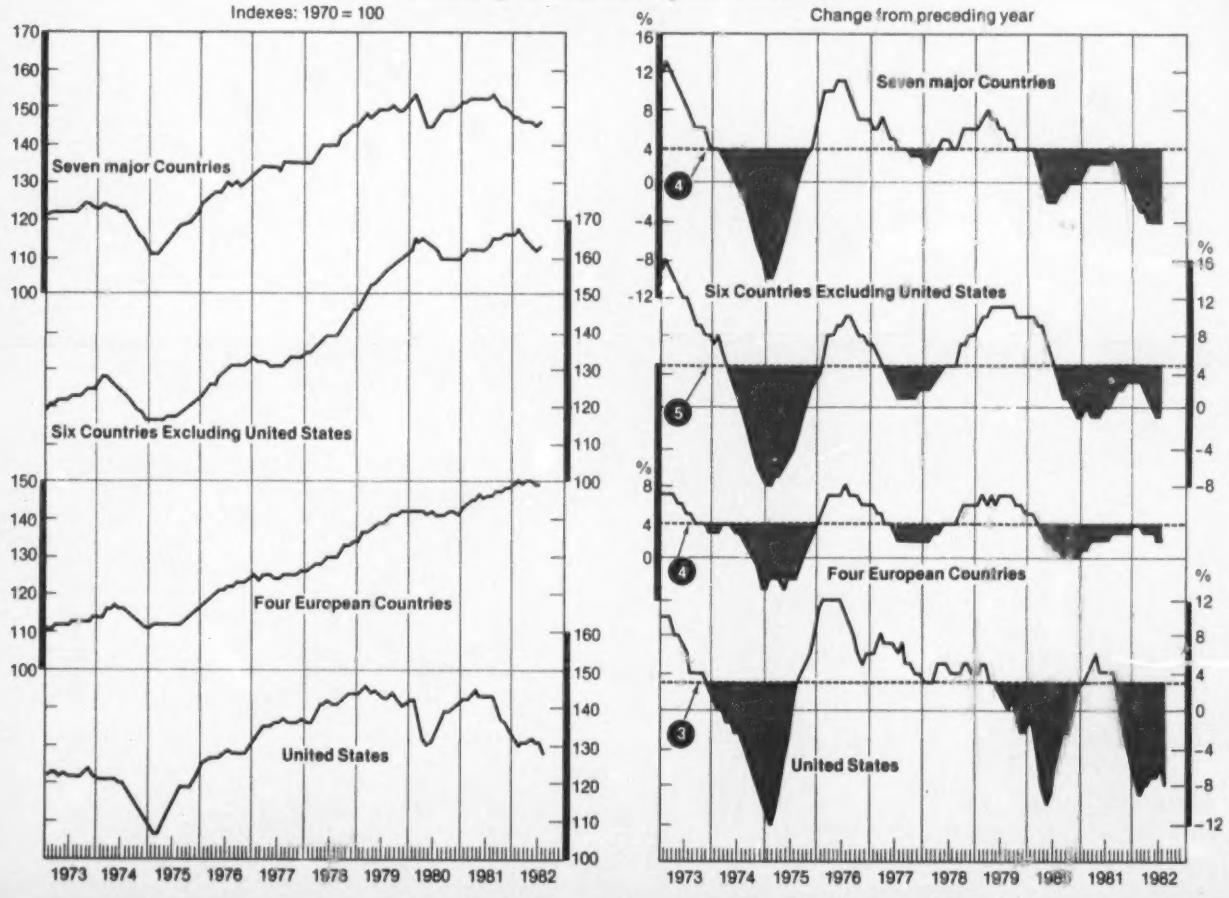
STATUS OF THE LEADING INDEXES

Summary: Sharp setbacks have hit the leading indexes for the U.S. and Japan, and to a lesser extent France and Italy. Indexes for the United Kingdom and West Germany continued to improve moderately. The decline in the Canadian index levelled off.

	Ten-year Growth Rates	*Recent rates of change**				
		6 mo. ago	*3 mo. ago*	*Latest*		*Current reading*
		(annual rates, percent)				
United States	3	—13	— 7	— 8	(Aug.)	Sharp setback in August.
Canada	5	— 9	—10	— 7	(July)	Contraction slowing.
Japan	8	7	— 6	— 8	(July)	Recovery aborted.
United Kingdom	2	4	3	3	(July)	Recovery continuing.
West Germany	4	3	6	4	(July)	" "
France	5	5	1	1	(July)	Expansion stopped.
Italy	4	0	4	— 2	(June)	" "
6 countries ex. U.S.	5	3	— 1	— 2	(July)	Recovery stopped.
7 countries	4	— 5	— 5	— 4	(July)	Stagnation prevails.

*Annual rate based on ratio of current month's index to average index over the preceding 12 months.

Leading Business Cycle Indexes



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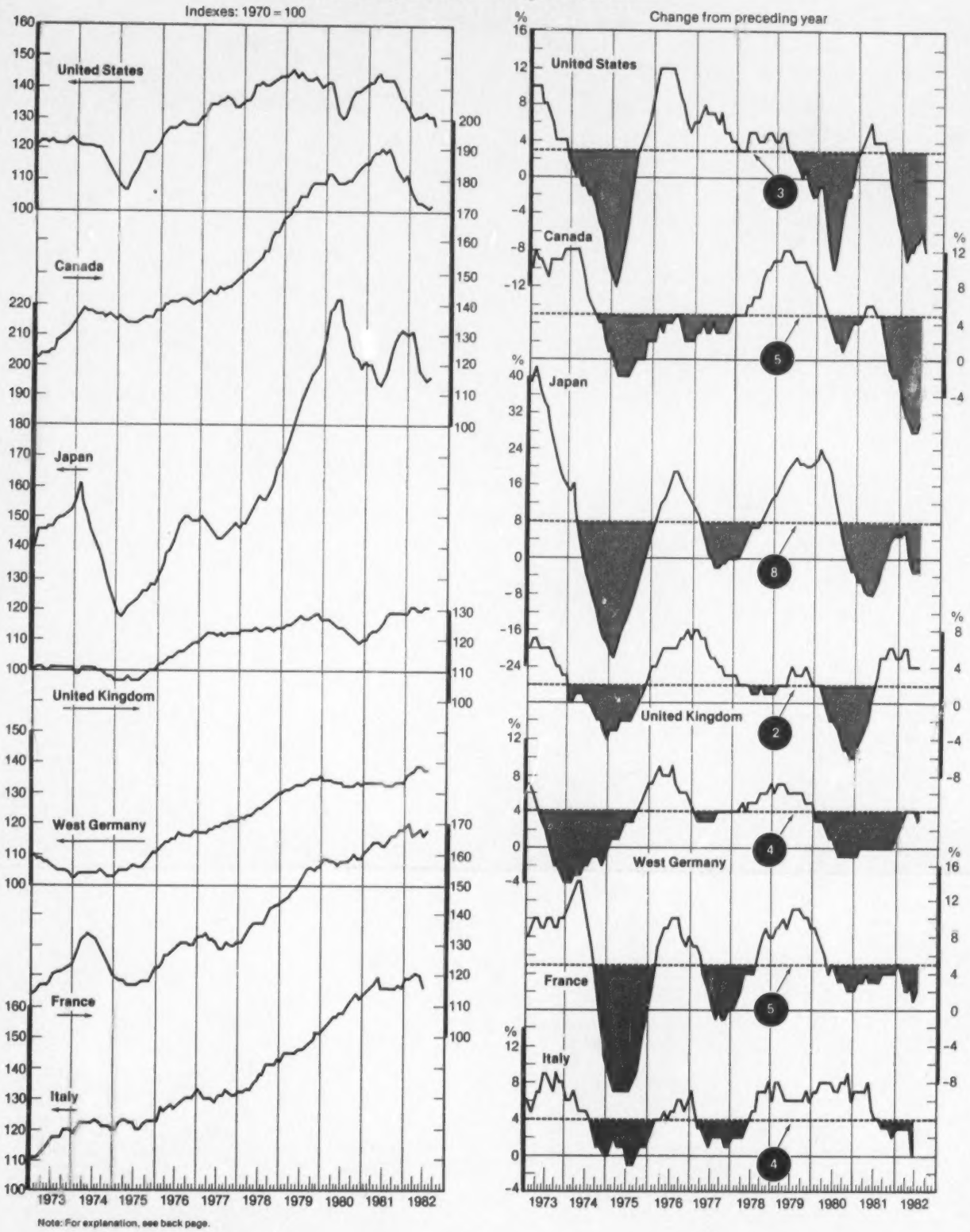
Leading Business Cycle Indexes



Note: For explanation, see back page.

Setbacks, but a Ray of Light

The U.S. leading index hit a new low in August, and new figures through July pushed the leading index for Japan down sharply. Smaller declines in France and Italy and continued stagnation in Canada make the world picture more somber than it was two months ago. Only in the United Kingdom and West Germany was there a solid, though modest, improvement. In the face of all this uncertainty, the sharp upturn in stock prices starting in August is a favorable development, analyzed below.

Why Stock Prices are a Leading Indicator

Each of the leading indexes published in the *Scoreboard* contains, as one of the components, an index of stock prices for the country concerned. In every country stock prices have a record of leading, that is, turning in advance of both the upturns and the downturns in the business cycle. In view of the recent upsurge on Wall Street, which has been echoed in Toronto, London and other markets, it is a good time to review the record and try to assess what it means.

The accompanying table summarizes the record for each of the seven countries. The table covers only upturns, but the results for downturns are similar. The market lows are compared with troughs in the growth cycle, the latter being based on upturns in aggregate economic activity (production, employment, income and sales) after allowing for the long-term trend. The growth cycle, in other words, is like a trend-adjusted business cycle. An upturn comes when economic activity begins to grow faster than its long-term trend. A similar adjustment is made in the stock price indexes. This is done so that the results will be more nearly comparable from one country to another, since the growth trends in each country are different.

Median Leads of Stock Price Indexes at Growth Cycle Troughs

U.S., 1948-81 . . .	4 months	W. Germany, 1955-81	8 months
Canada, 1948-81.	6 "	France, 1948-81	9 "
Japan, 1953-81 . .	4 "	Italy, 1949-81	8 "
U.K., 1948-81 . . .	8 "	Seven Countries.	8 "

Leading Indexes, Seven Countries, 1980-81

		U.S.	Canada	Japan	U.K.	West Germany	France	Italy	7 Countries	6 Countries ex. U.S.	4 Countries, Europe
						Indexes, 1970 = 100					
Jan.	81	142	186	200	121	134	161	164	151	161	143
Feb.	81	142	188	200	122	134	162	165	151	162	144
Mar.	81	144	189	197	123	134	163	166	152	162	145
Apr.	81	145	189	194	123	134	164	167	152	162	145
May	81	143	190	193	124	134	164	169	152	162	146
June	81	143	189	196	126	134	163	166	152	162	145
July	81	143	190	199	128	133	163	166	152	163	146
Aug.	81	143	187	205	129	133	165	166	153	165	146
Sept.	81	140	184	208	129	133	166	166	152	165	147
Oct.	81	137	182	210	129	134	166	166	150	165	147
Nov.	81	136	180	212	129	134	168	167	150	166	148
Dec.	81	134	182	211	129	134	168	166	149	166	148
Jan.	82	132	177	210	129	136	169	169	147	166	149
Feb.	82	130	175	211	131	137	170	169	147	167	150
Mar.	82	131	173	206	131	138	166	170	146	165	149
Apr.	82	131	173	198	130	139	167	171	146	164	150
May	82	132	172	196	130	139	168	170	146	163	150
June	82	131	171	195	131	138	166	166	145	162	149
July	82	131	172	196	131	138	168		146	163	149
Aug.	82	128									
						Percent Change from Preceding Year					
Jan.	81	3	4	−5	−5	−1	2	7	1	0	1
Feb.	81	4	5	−5	−4	0	3	7	2	0	1
Mar.	81	5	6	−7	−3	0	3	7	2	−1	2
Apr.	81	6	6	−8	−2	0	4	7	2	−1	2
May	81	4	6	−8	0	0	3	8	2	−1	2
June	81	4	5	−7	2	0	3	5	2	0	2
July	81	4	5	−5	3	0	3	4	2	0	2
Aug.	81	4	3	−2	5	0	3	4	3	1	3
Sept.	81	2	1	0	5	0	4	3	2	2	3
Oct.	81	−1	−1	3	6	0	4	3	0	2	3
Nov.	81	−3	−2	5	6	0	4	3	0	3	3
Dec.	81	−5	−2	5	5	1	4	2	−1	3	3
Jan.	82	−7	−5	5	5	2	5	3	−2	3	4
Feb.	82	−9	−6	6	6	3	4	3	−3	3	4
Mar.	82	−8	−7	3	6	4	2	3	−3	2	3
Apr.	82	−8	−8	−1	4	4	2	3	−4	1	3
May	82	−7	−8	−3	4	4	3	3	−4	0	3
June	82	−7	−8	−3	4	4	1	0	−4	−1	2
July	82	−6	−7	−3	4	3	2		−4	−1	2
Aug.	82	−8									
						Ten-Year Annual Growth Rate, Percent					
1968-78		3	5	8	2	4	5	4	4	5	4

The averages given in the table show a lead in every country, ranging from four months in the United States and Japan to eight or nine months in Europe. That is, stock prices have turned up while business activity has continued to sink for six months or so. The lengths of lead have varied from cycle to cycle as well as from country to country, but the general tendency is clear. The figures for the seven countries provide 41 comparisons of upturns and 37 were leads. Stock prices have been a leading indicator 90% of the time.

Sometimes this is attributed to prescience. It is certainly true that participants in the market keep themselves well informed about economic prospects and act promptly on any new information. Decisions to buy or sell stock can be put into effect far more promptly than decisions to expand or contract a company's operations. The market has a great advantage as a recording device for decisions that are known or announced but whose effect on output, employment, income or sales will be spread over many months in the future.

In so far as current and prospective profits affect those decisions, as they certainly do, information about profits must affect the stock market. In fact, our studies show that profits also are a leading indicator. In every country where quarterly data on profits, or profit margins, or the ratio of selling prices to labor costs per unit of output are available, they usually lead the upturns in the growth cycle, and by about the same length of time as stock prices. Hence they also are included in the leading indexes.

As is well known, interest rates exert an inverse influence on stock prices. This is partly because interest-bearing obligations, such as bonds, are an alternative investment. When bond yields go down, bond prices go up, and stock prices often go up too. Interest rates also affect profits since they are a part of the cost of doing business, holding inventories, making new capital investments, etc. So a decline in interest rates improves the prospect for profits and this too makes for a rise in stock prices.

Historically, however, there has often been a considerable lag between a downturn in interest rates and an upturn in stocks. This is because the decline in interest rates may reflect declining demand for funds and a poorer economic outlook, and this is not conducive to higher stock prices. The inverse effect is there but it doesn't become dominant until other conditions are ripe for it.

This is the chief reason why interest rates, or the prices of fixed income obligations, have not been classified as leading indicators. Both short- and long-term rates move with the business cycle, and although this eventually paves the way for a reversal in both stock prices and the business cycle, "eventually" often means a very long time.

In conjunction with other evidence, therefore, interest rate movements are helpful guides to stock price movements. In addition, stock price movements have a bearing on interest rates. An upswing in stocks attracts new issues there, away from the bond market, pushing bond prices up and yields down. Wall Street is a two-way street (for pedestrians). Moreover, stock price movements in themselves affect other business decisions. An upswing generates confidence and prompts decisions to invest, float new issues, and get on the expansionary band wagon.

With all this in mind, we are inclined to view the upturn in U.S. stock prices in August, September and October 1982, in conjunction with a continuing decline in interest rates, a levelling tendency in profit margins, and flickering improvements in most other leading indicators, as a repeat performance of a time-honored routine: stock prices leading a business recovery before that event itself is a certainty.

THE INTERNATIONAL ECONOMIC INDICATOR SYSTEM

This bimonthly Conference Board report on the economic outlook in seven major industrial countries is based on an analytical system of leading, coincident and lagging indicators that has become widely used in the United States to appraise the state of the business cycle. Geoffrey H. Moore and Philip A. Klein have developed comparable sets of indicators for six other countries, which are being kept up to date, analyzed, and circulated to subscribers by the Center for International Business Cycle Research at Rutgers University.

The leading indexes shown here are composites based on some 65 indicators that usually anticipate cyclical changes in national output or employment, typically by 3 or 4 months. (See "What the Leading Indicators Indicate," *Across The Board*, April 1980.) Considerable variation in the length of lead is to be expected, however, so that constant monitoring is needed for effective use of the system. To facilitate analysis the indexes are adjusted so their long run growth rates are equal to those in real GNP in the country concerned during 1966-76. (These growth rates are shown at the bottom of the table and by horizontal lines on the right panel of the charts.)

For More Information and Instruction

To find out more about this indicator system, please address inquiries to

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The Conference Board

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DECEMBER 1982

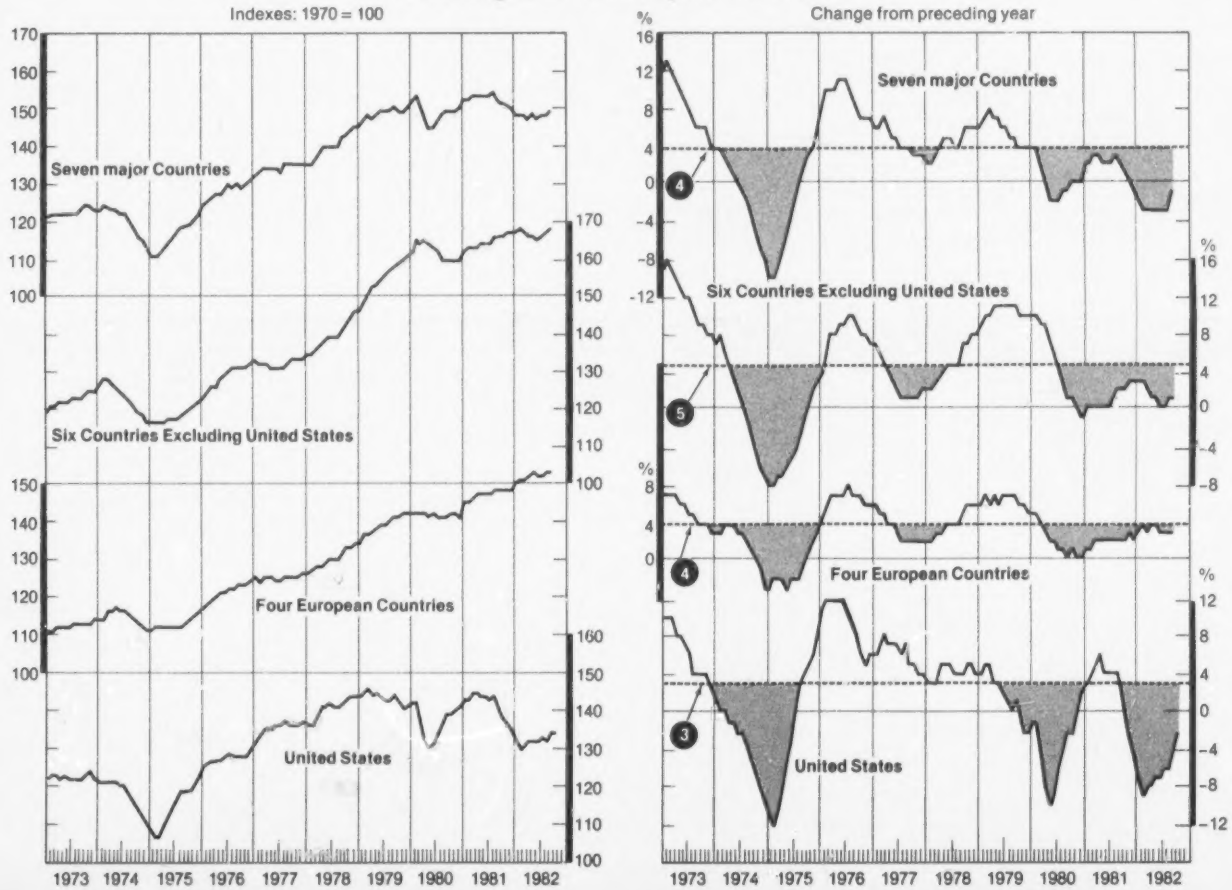
STATUS OF THE LEADING INDEXES

Summary: Signs of recovery in the leading indicators have been appearing in the United States as well as in other countries in recent months, but they are spotty rather than vigorous and pervasive.

	Ten-year Growth Rates 1966-76	*Recent rates of change** *6 mo. ago*	*3 mo. ago*	*Latest*		*Current reading*
		(annual rates, percent)				
United States	3	— 9	— 4	2	(Oct.)	First sign of recovery.
Canada	5	—10	— 9	— 4	(Sept.)	Contraction slowing.
Japan	8	2	— 6	— 1	(Sept.)	Modest upturn since July.
United Kingdom	2	4	2	2	(Sept.)	Slow-motion upswing continuing.
West Germany	4	6	4	2	(Sept.)	Slow-motion upswing continuing.
France	5	2	5	6	(Sept.)	Expansion resumed.
Italy	4	4	3	0	(Aug.)	Expansion on hold.
6 countries ex. U.S.	5	2	— 1	— 1	(Sept.)	Modest upturn since June.
7 countries	4	— 5	— 4	— 1	(Sept.)	Modest upturn since June.

*Annual rate based on ratio of current month's index to average index over the preceding 12 months.

Leading Business Cycle Indexes


Indexes: 1970 = 100
Change from preceding year
%
Seven major Countries
Six Countries Excluding United States
Four European Countries
United States
1973 1974 1975 1976 1977 1978 1979 1980 1981 1982

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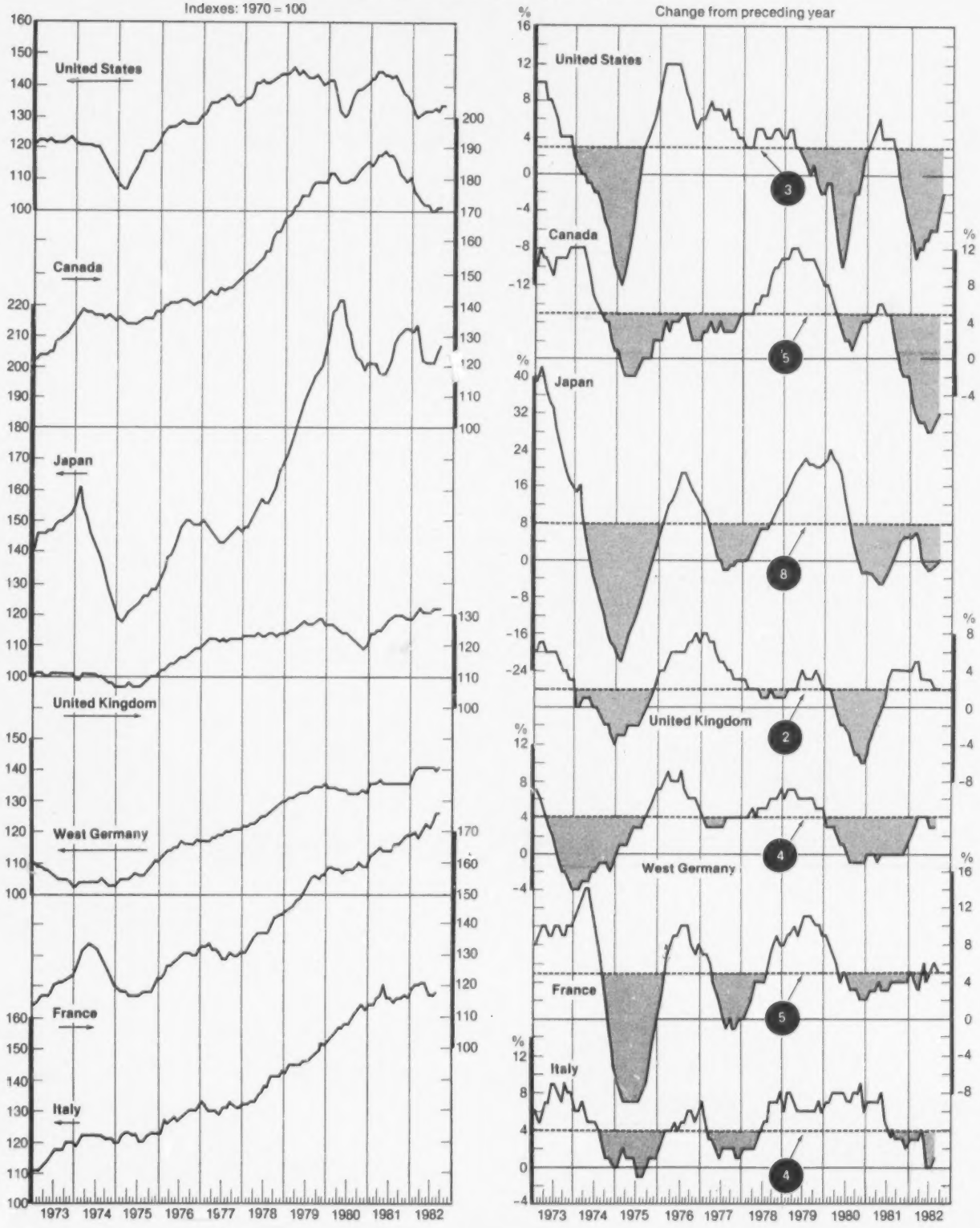
Leading Business Cycle Indexes



A Note of Guarded Optimism

Overall, the leading economic indexes suggest an incipient recovery in the major industrial countries. So far the pace is not sufficiently vigorous or pervasive to label this conclusion as more than tentative. It is supported, however, by the evidence on costs, prices and profits discussed below.

Growth rates for the leading indexes in the United States, the United Kingdom, West Germany and France are positive, but they are zero or negative for Italy, Japan and Canada. The U.S. leading index has recovered moderately during 1982, and its growth rate has now reached a pace sufficient to pass the initial threshold set by a system of signals designed to identify recoveries. This initial signal means that an economic recovery is "probably" getting underway. Confirmation by two additional signals that usually follow in a few months will be required before a more definite statement can be made.

Costs, Prices and Profits: Setting the Stage for Recovery

Numerous studies of business cycles have identified forces that operate during recessions to brake the cumulative process of contraction and bring about recovery. One of the most powerful involves the prospects for profits. Recessions start out with an imbalance between costs and prices that damages profits; costs are usually rising faster than prices, and that condition persists for a while during the downswing. However, the recession itself brings about a realignment as business enterprises strive to reduce costs. Once costs are rising less rapidly than prices, the outlook for profitable expansion of sales and output improves, and this sets the stage for recovery.

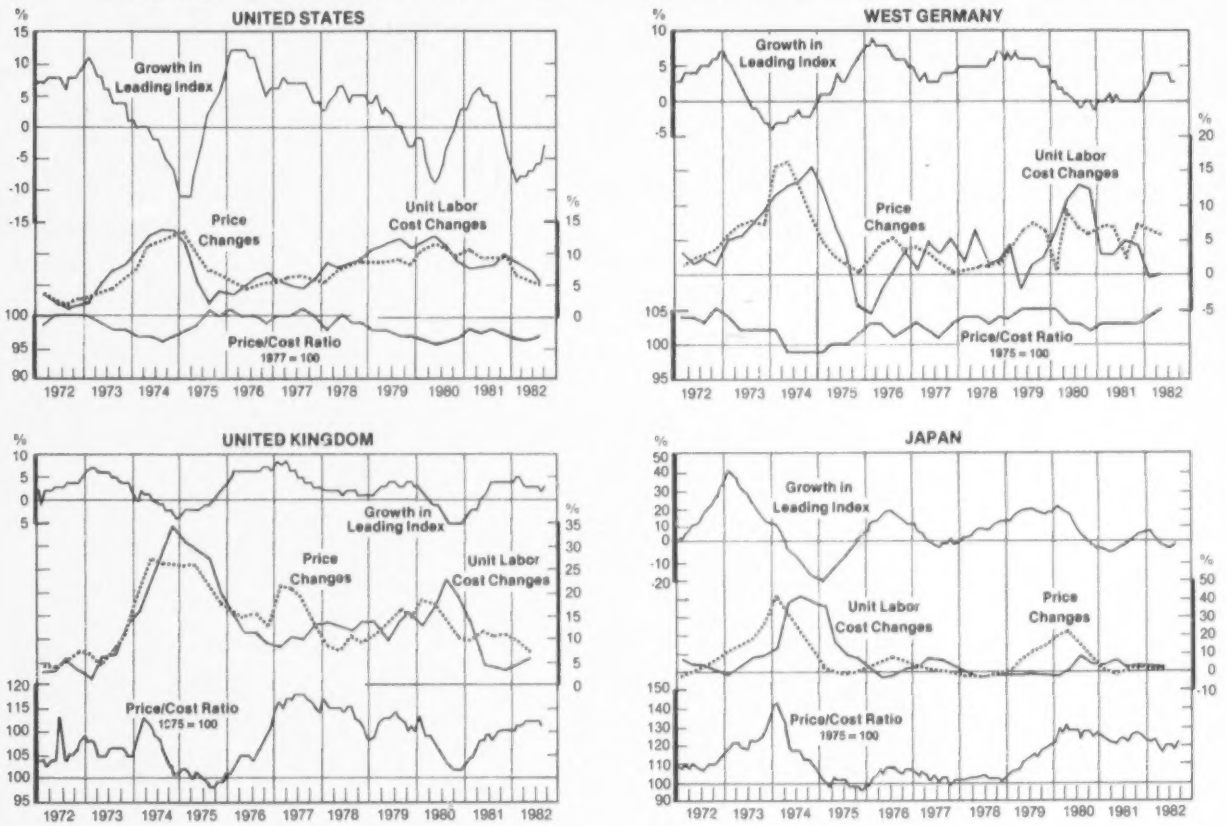
Recent developments in the cost/price picture, viewed in the light of these business cycle findings, suggest there are grounds for some optimism about the prospects of a recovery from the worldwide recession. In the U.S., labor costs per unit of product, which had been rising faster than prices through late 1981 and the first half of 1982, are now back in line with or below the rise in prices (see chart page 4). Profit margins are, therefore, starting to improve. In West Germany and Japan, unit labor costs have become virtually stable, after rising quite rapidly in 1980 and 1981. In Germany, the most recent figures show prices rising faster than costs. In Japan, costs and prices have been stable of late, but the price/cost ratio has not improved. In the United Kingdom, significant progress in the price-cost battle has occurred. In 1980, unit labor costs in British factories were rising at well over twenty per cent annually while prices charged were rising less rapidly. During the next year or so, British labor cost increases fell like a stone. Price inflation also declined substantially, but not as much as costs. That spelled an improvement in profit margins.

Summing up, price-labor cost changes for the U.S., West Germany, and the U.K. are undergoing the realignment characteristic of the later stages of recession—a realignment that is a prerequisite for recovery. The improvement in stock prices, discussed in the preceding issue of the *Scoreboard*, suggests that the market has been alert to these prospects for enhanced earnings. The decline in interest rates has, of course, also been a factor, because lower rates both reduce operating costs and raise the capitalized value of earnings.

Leading Indexes, Seven Countries, 1981-82

	U.S.	Canada	Japan	U.K.	West Germany	France	Italy	7 Countries	6 Countries ex. U.S.	4 Countries, Europe
					Indexes, 1970 = 100					
Jan. 82	132	176	212	129	138	169	169	148	167	150
Feb. 82	130	175	214	131	140	170	170	148	168	151
Mar. 82	131	173	209	132	141	168	170	148	167	151
Apr. 82	132	172	202	131	141	171	171	147	166	152
May 82	132	172	201	131	141	173	171	148	166	153
June 82	132	170	201	131	141	172	167	147	165	152
July 82	133	170	201	132	141	174	167	148	166	152
Aug. 82	132	171	204	132	140	176	168	148	167	153
Sept. 82	134	171	207	132	141	176		149	168	153
Oct. 82	134									
					Percent Change from Preceding Year					
Jan. 82	−7	−5	5	4	2	5	3	−2	3	3
Feb. 82	−9	−6	6	5	3	4	3	−3	3	4
Mar. 82	−8	−7	4	5	4	3	3	−3	2	3
Apr. 82	−8	−7	0	3	4	4	4	−3	1	4
May 82	−7	−7	−1	3	4	6	3	−3	1	4
June 82	−7	−8	−2	3	4	4	0	−3	0	3
July 82	−6	−8	−2	3	4	5	0	−3	0	3
Aug. 82	−6	−7	−1	2	3	6	1	−3	1	3
Sept. 82	−4	−6	0	2	3	5		−1	1	3
Oct. 82	−2									
					Ten-Year Annual Growth Rate, Percent					
1966-76	3	5	8	2	4	5	4	4	5	4

Growth Rates in Leading Indexes and Changes in Selling Prices, Unit Labor Cost, and Price/Cost Ratios



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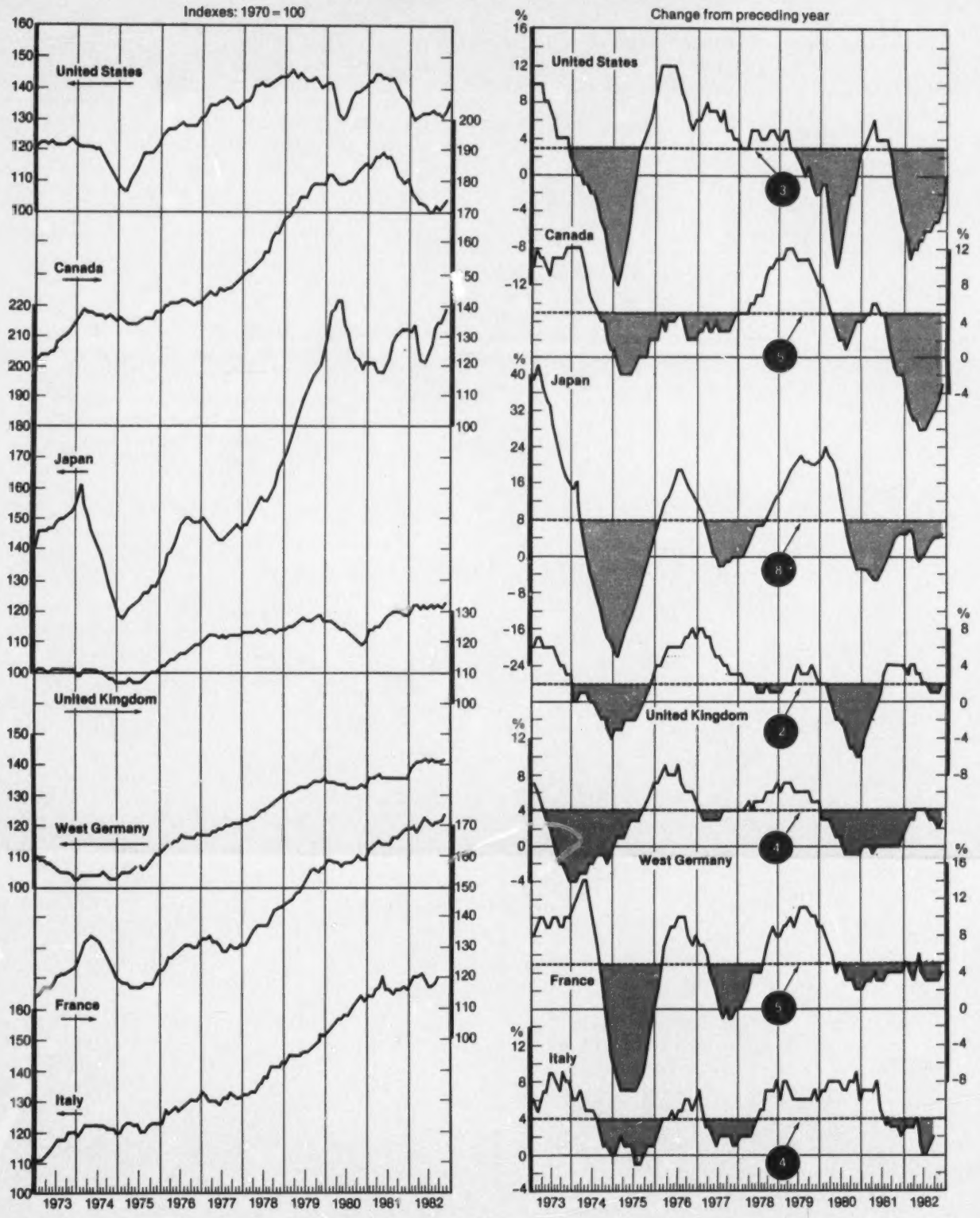

Stronger Grounds for Optimism

The recent recession has encompassed much of the world, creating widespread interest in the prospects for economic recovery. In the December *Scoreboard* we expressed guarded optimism about those prospects; this optimism has now been strengthened by recent improvements in the leading indexes. Growth rates for the indexes for all seven countries covered in this report are now positive for the first time since August 1981, with the growth rate in the U.S. leading index now exceeding that in every other country except Japan. A U.S. recovery in 1983 will boost prospects for many other countries, both developed and developing; similarly, an upswing in those countries will strengthen the upswing in the United States.

Is the Worldwide Downswing Ending?

This issue discusses for the first time an analytical tool called the growth cycle, a relatively new concept related to the better known business cycle. A growth cycle consists of a period of relatively high growth rates in many economic activities, followed by a period of similarly widespread low growth rates, which merges into the high growth phase of the next cycle. The dates when economic slowdowns begin and end, referred to as peaks and troughs, are recorded in growth cycle chronologies and are available for each of the seven countries covered in the *Scoreboard*. When all or most of the seven countries are in a slowdown at the same time, export markets are likely to be weak, while under opposite conditions, exports are likely to be strong.

Past records of growth cycle slowdowns have averaged about twenty months in most countries, with the intervening upswings slightly longer. The current worldwide slowdown, which began in the late 1970's, has already run about forty months for the seven countries examined in this report. Thus, it has been about twice as long as the average slowdown and the longest in postwar history.

The U.S. now seems poised for a recovery from its growth slowdown, which dates from December 1978. The fact that the U.S. leading index growth rate, as recorded in the table on page one, has reached five percent, is evidence that the slowdown is about over. True, the index reached higher growth rates in the first half of 1981, but at that time the leading indexes for other countries remained weak, curtailing our exports. Now the trend abroad is stronger. Moreover, as noted in the preceding *Scoreboard,* cost/price developments in the U.S. and in some other countries have improved the outlook for profitable expansion of sales and output.

The leading indexes themselves do not define the growth cycle slowdowns, which are defined by the

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Oct.	82	131	172	215	131	141	172		148	169	152
Nov.	82	133	174	219	133	142	174		150	171	153
Dec.	82	136									
						Percent Change from Preceding Year					
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June	82	—7	—8	0	2	4	4	1	—3	1	3
July	82	—6	—8	1	2	4	3	0	—2	1	2
Aug.	82	—6	—7	3	1	3	3	1	—2	1	2
Sept.	82	—5	—6	4	1	3	3	2	—1	2	2
Oct.	82	—5	—5	4	1	2	3		—1	2	2
Nov.	82	—3	—3	5	2	3	4		0	3	3
Dec.	82	0									
						Ten-Year Annual Growth Rate, Percent					
1966-76		3	5	8	2	4	5	4	4	5	4

growth rates in measures of aggregate economic activity, such as gross national product, industrial production, and employment. Slowdowns end when these measures begin a sustained period of relatively rapid growth—relative, that is, to the long-run growth trend of the economy. The leading indexes help anticipate such periods by focusing on commitments that result in future output, such as new orders and construction contracts, or on factors that influence such commitments, such as profit margins and stock prices. The leads in these indicators are often not very long, especially at upturns in the growth cycle (see table). At about the time that one can observe a significant strengthening among the leaders, the bottom of the growth cycle may have already been reached. That could well be the case right now.

MEDIAN LEAD (—) OF COMPOSITE LEADING INDEXES, IN MONTHS, AT GROWTH CYCLE TROUGHS, SEVEN COUNTRIES

Country and Growth Cycle Dates Covered	*Median Lead, in months*
United States, 1948-1978	-2
Canada, 1957-1979	-4
Japan, 1953-1975	-5
United Kingdom, 1951-1975	-9
West Germany, 1951-1975	-2
France, 1957-1975	0
Italy, 1955-1977	-6
6 Countries ex. U.S.	-4
7 Countries	-4

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A Bimonthly Report from The Conference Board

INTERNATIONAL ECONOMIC SCOREBOARD

The Conference Board

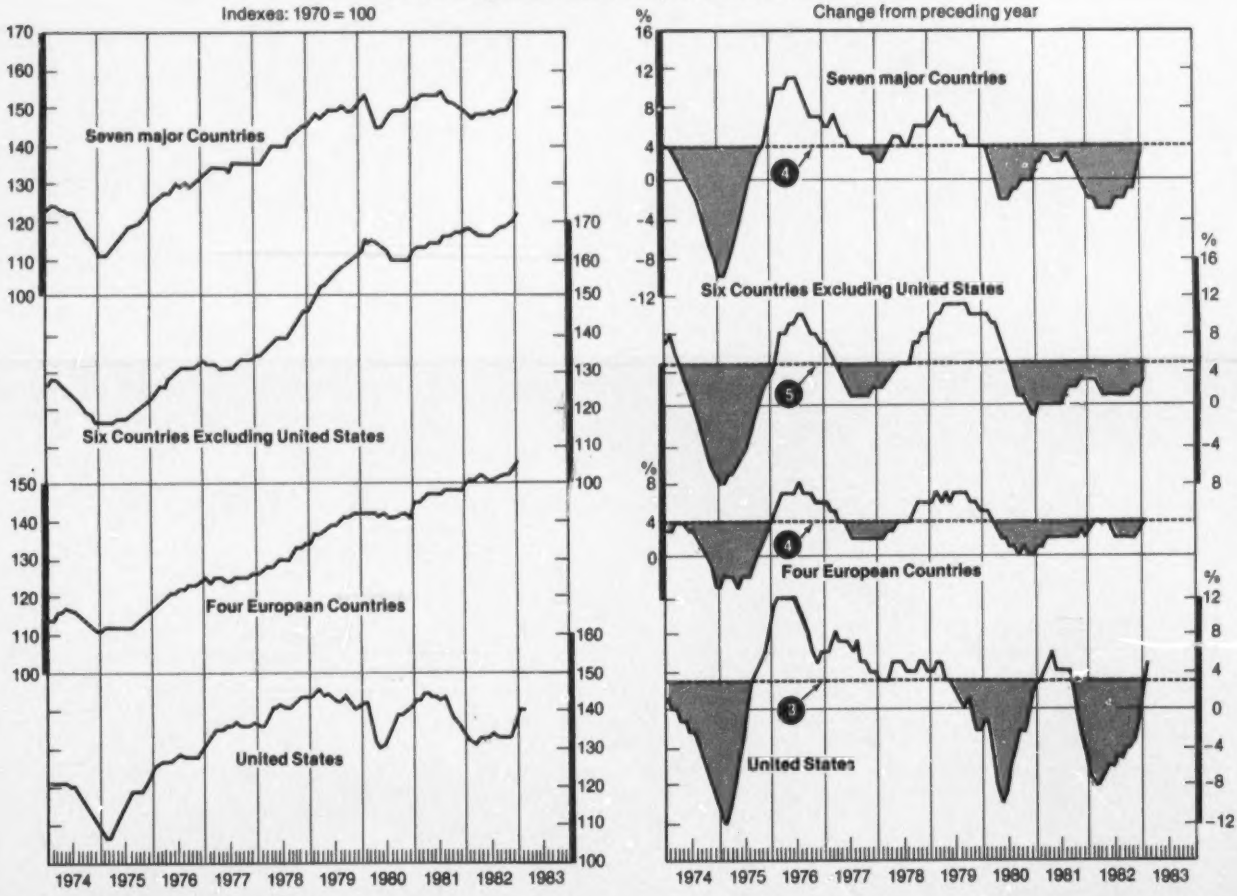
APRIL 1983 **STATUS OF THE LEADING INDEXES**

Summary: The most recent leading indexes for seven major industrial nations show rapid growth, except for Italy and Japan. The indexes strongly support the conclusion that a worldwide recovery is at hand.

	Ten-year Growth Rates 1966-76	*Recent rates of change** 6 mo. ago	3 mo. ago	Latest	*Current reading*	
		(annual rates, percent)				
United States	3	— 4	— 1	10	(Feb.)	Recovery accelerating.
Canada	5	— 9	— 1	6	(Jan.)	Recovery accelerating.
Japan	8	0	4	2	(Jan.)	Upswing moderating.
United Kingdom	2	2	1	5	(Jan.)	Upswing continuing.
West Germany	4	4	1	6	(Jan.)	Recovery continuing.
France	5	1	2	3	(Jan.)	Expansion continuing.
Italy	4	3	— 1	1	(Nov.)	Expansion moderating.
6 countries ex. U.S.	5	0	1	5	(Jan.)	Expansion strengthening.
7 countries	4	— 2	0	7	(Jan.)	Recovery accelerating.

*Annual rate based on ratio of current month's index to average index over the preceding 12 months.

Leading Business Cycle Indexes



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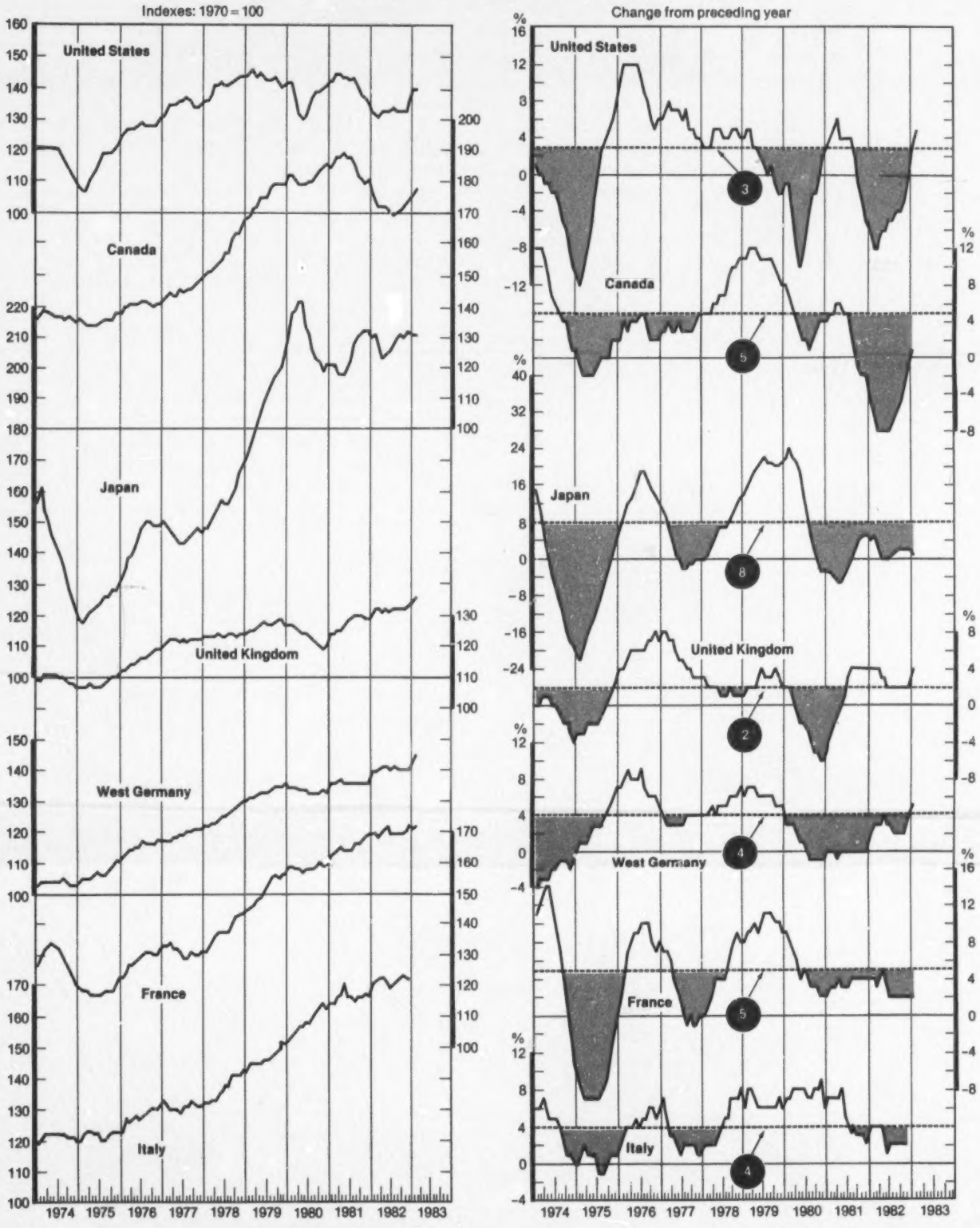
Leading Business Cycle Indexes



Still Stronger Reasons for Optimism

Four months ago, the leading indexes supported a guardedly optimistic appraisal for an economic recovery throughout the world in 1983. Two months later, they provided stronger grounds for optimism about an international upswing. The trend has continued, with the latest figures showing strong growth in the leading indexes for the United States, the United Kingdom, Canada and West Germany. Moderate growth has characterized the indexes for France, Italy and Japan. Overall, as discussed below, the prospects for an early upturn in industrial output and exports in the world's market economies are promising.

Outlook for World Economy Improving

The outlook for a recovery of economic activity in 1983, in both the United States and rest of the world, is now considerably brighter than it was six to nine months ago. This follows a three-year decline in production, of about two percent for the world as a whole and of about eight percent for the United States.

Panel 1 in the chart on page 4 suggests the reason for the renewed optimism. The panel shows the annual percentage changes between 1969 and 1982 in the leading index for the seven major industrial countries covered by the *Scoreboard*. It also shows the subsequent years' percentage changes in industrial production for all market economies, developed as well as developing, including some 105 countries.

The chart indicates that the rate of change of the leading index towards the end of a year is closely related to the change in industrial production the following year. The good news for 1983 is to be found in the growing strength in the seven-country index during the second half of 1982. The rate changed from negative to positive in September, remaining positive through the year-end; in December, the index was rising at a 3.3 percent annual rate. Since the historical data disclose that the year-end growth rate in the leading index anticipates the next year's change in output with considerable fidelity, the uptrend in the leaders through December is a good omen for output growth in the world economy in 1983.

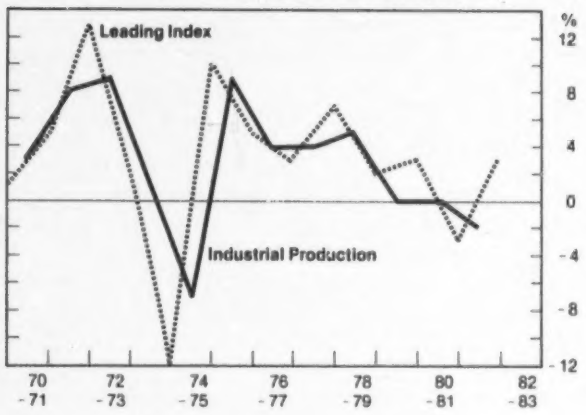
Export Growth Also Likely To Resume

An increase in the volume of world exports tends to be associated with growth in world output. If changes in the leading indexes point to future changes in output, they can therefore also be expected to give advance notice of changes in foreign-trade flows. Panel 2 shows that, although export volume grew faster than industrial production in the market economies in almost every

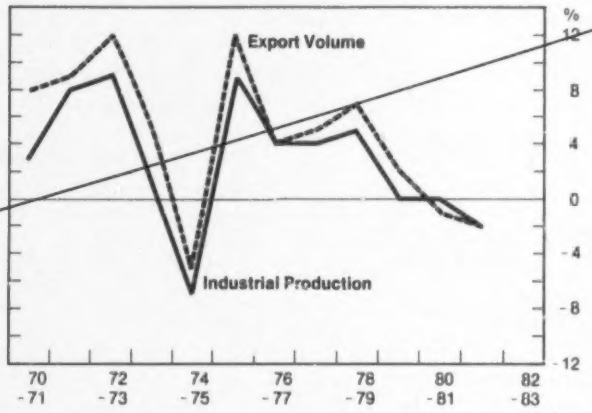
Leading Indexes, Seven Countries, 1981-82

	U.S.	Canada	Japan	U.K.	West Germany	France	Italy	7 Countries	6 Countries ex. U.S.	4 Countries, Europe
					Indexes, 1970 = 100					
Jan. 82	133	176	210	130	139	169	170	149	167	150
Feb. 82	132	174	211	132	139	169	171	148	168	151
Mar. 82	131	172	208	132	140	168	172	147	167	151
Apr. 82	133	172	203	131	141	170	172	148	166	152
May 82	133	172	204	132	141	172	171	148	166	152
June 82	133	170	205	131	140	169	168	148	166	151
July 82	134	169	207	132	141	169	170	149	166	151
Aug. 82	133	170	210	132	140	169	171	148	167	151
Sept. 82	133	171	211	132	140	169	172	149	168	152
Oct. 82	133	173	210	132	140	170	173	149	168	152
Nov. 82	133	174	212	133	140	172	172	149	169	152
Dec. 82	136	176	211	134	143	171		151	170	154
Jan. 83	140	178	211	136	145	172		154	172	156
Feb. 83	140									
					Percent Change from Preceding Year					
Jan. 82	−6	−5	4	4	2	4	4	−2	3	3
Feb. 82	−8	−6	5	4	3	4	4	−2	3	4
Mar. 82	−8	−8	3	4	3	3	4	−3	2	4
Apr. 82	−7	−8	1	3	3	4	4	−3	1	4
May 82	−6	−8	0	3	4	5	3	−3	1	4
June 82	−6	−8	0	2	3	3	1	−3	1	2
July 82	−5	−8	1	3	3	2	2	−2	1	2
Aug. 82	−5	−7	2	2	2	2	2	−2	1	2
Sept. 82	−4	−6	2	2	2	2	2	−2	1	2
Oct. 82	−4	−5	2	2	2	2	2	−1	1	2
Nov. 82	−3	−3	2	2	2	2	2	−1	2	2
Dec. 82	0	−1	2	2	4	2		1	2	3
Jan. 83	3	1	1	4	5	2		3	3	4
Feb. 83	5									
					Ten-Year Annual Growth Rate, Percent					
1966-76	3	5	8	2	4	5	4	4	5	4

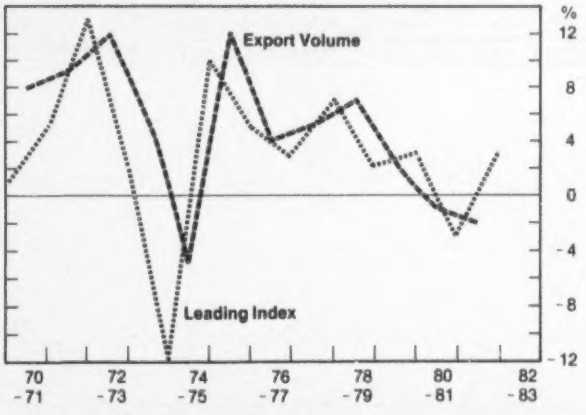
1
Leading Index Anticipates Growth in Output



2
Output and Exports Grow Together



3
Leading Index Anticipates Growth in Exports



Note: The leading index covers the seven major industrial countries; its growth rate is based on the ratio of the December index for the initial year (e.g., 1970) to the average for the preceding twelve months. The industrial production and export volume indexes cover all market economies and growth rates are calendar-year percentage changes (e.g., 1970-71). Indexes for production and exports are from the United Nations Statistical Office.

year since 1970, the fluctuations in exports matched those in output rather faithfully.

The year-end growth rate in the seven-country leading index thus forecasts a forthcoming change in both world production and exports. (It matters little whether the connection with exports is made directly or indirectly.) As Panel 3 indicates, changes in the leading index anticipate the following year's change in export volume as well.

Thus, with a rebound in the growth of the leading index in recent months, there is a strong likelihood that the volume of exports by the world's market economies will be advancing in 1983 along with industrial production. In fact, if past relationships hold, worldwide production would be about three percent higher, and the volume of exports about five percent higher, in 1983 than in 1982.

The International Economic Indicator System

This bimonthly Conference Board report on the economic outlook in seven major industrial countries is based on an analytical system of leading, coincident and lagging indicators that has become widely used in the United States to appraise the state of the business cycle. Geoffrey H. Moore and Philip A. Klein have developed comparable sets of indicators for six other countries, which are being kept up to date, analyzed, and circulated to subscribers by the Center for International Business Cycle Research at Rutgers University.

The leading indexes shown here are composites based on some 65 indicators that usually anticipate cyclical changes in national output or employment, typically by 3 or 4 months. (See "What the Leading Indicators Indicate," *Across The Board,* April 1980.) Considerable variation in the length of lead is to be expected, however, so that constant monitoring is needed for effective use of the system. To facilitate analysis the indexes are adjusted so their long run growth rates are equal to those in real GNP in the country concerned during 1966-76. (These growth rates are shown at the bottom of the table and by horizontal lines on the right panel of the charts.)

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A Bimonthly Report from The Conference Board

INTERNATIONAL ECONOMIC SCOREBOARD

The Conference Board

R4105-6 19

JUNE, 1983

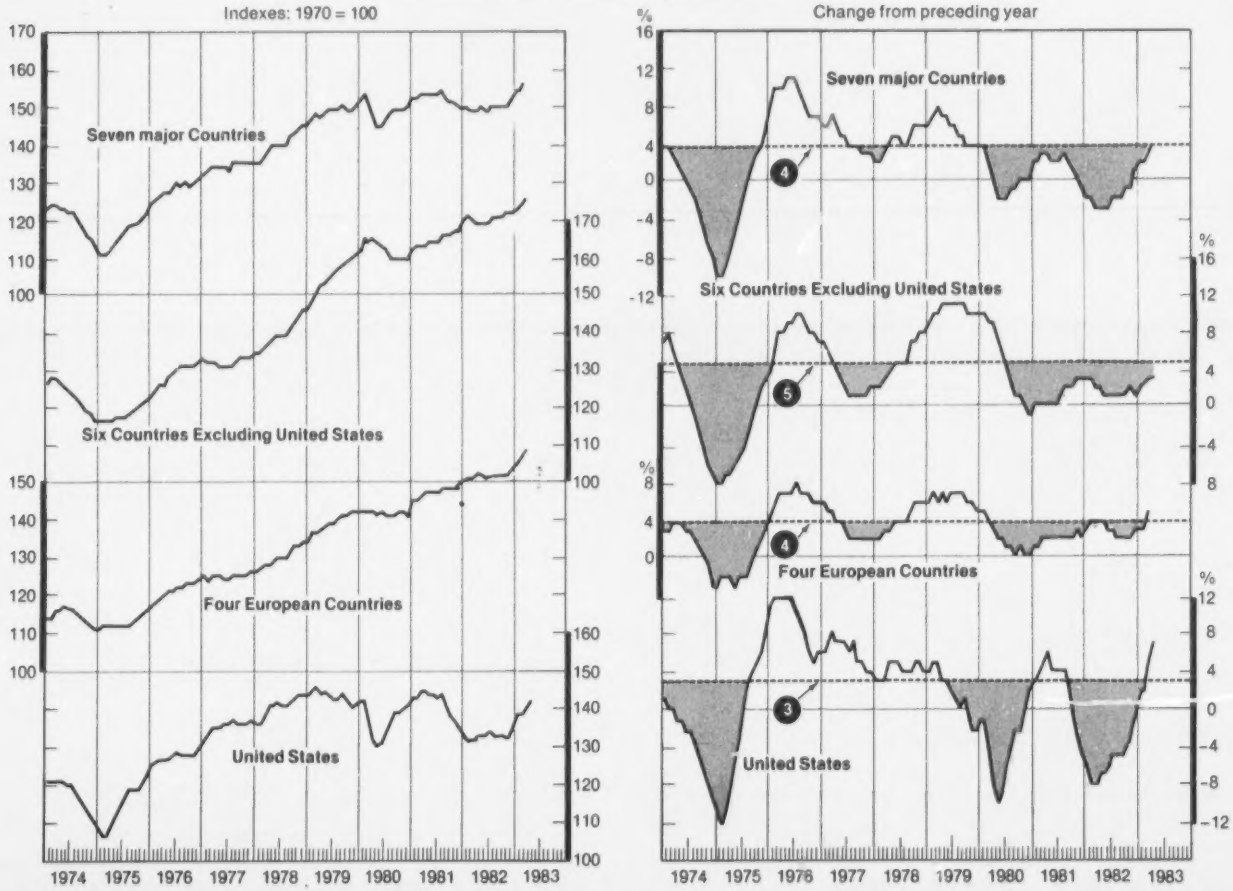
STATUS OF THE LEADING INDEXES

Summary: In the major industrial nations except Italy and Japan, growth rates in the leading indexes have reached 6 to 11% per year. This acceleration is typical in the early stages of a business cycle recovery.

	Ten-year Growth Rates 1966-76	*Recent rates of change**				
		6 mo. ago	*3 mo. ago*	*Latest*		*Current reading*
		(annual rates, percent)				
United States	3	— 2	7	11	(Apr.)	Strong expansion underway.
Canada	5	— 4	3	8	(Mar.)	Strong expansion underway.
Japan	8	2	-- 1	0	(Mar.)	Upswing stopped.
United Kingdom	2	2	4	6	(Mar.)	Expansion accelerating.
West Germany	4	2	4	6	(Mar.)	Expansion accelerating.
France	5	1	2	10	(Mar.)	Expansion accelerating.
Italy	4	1	1	2	(Jan.)	Modest expansion continuing.
6 countries ex. U.S.	5	1	2	5	(Mar.)	Expansion accelerating.
7 countries	4	— 1	2	7	(Mar.)	Expansion accelerating.

*Annual rate based on ratio of current month's index to average index over the preceding 12 months.

Leading Business Cycle Indexes


Indexes: 1970 = 100
Seven major Countries
Six Countries Excluding United States
Four European Countries
United States
Change from preceding year
Seven major Countries
Six Countries Excluding United States
Four European Countries
United States
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983

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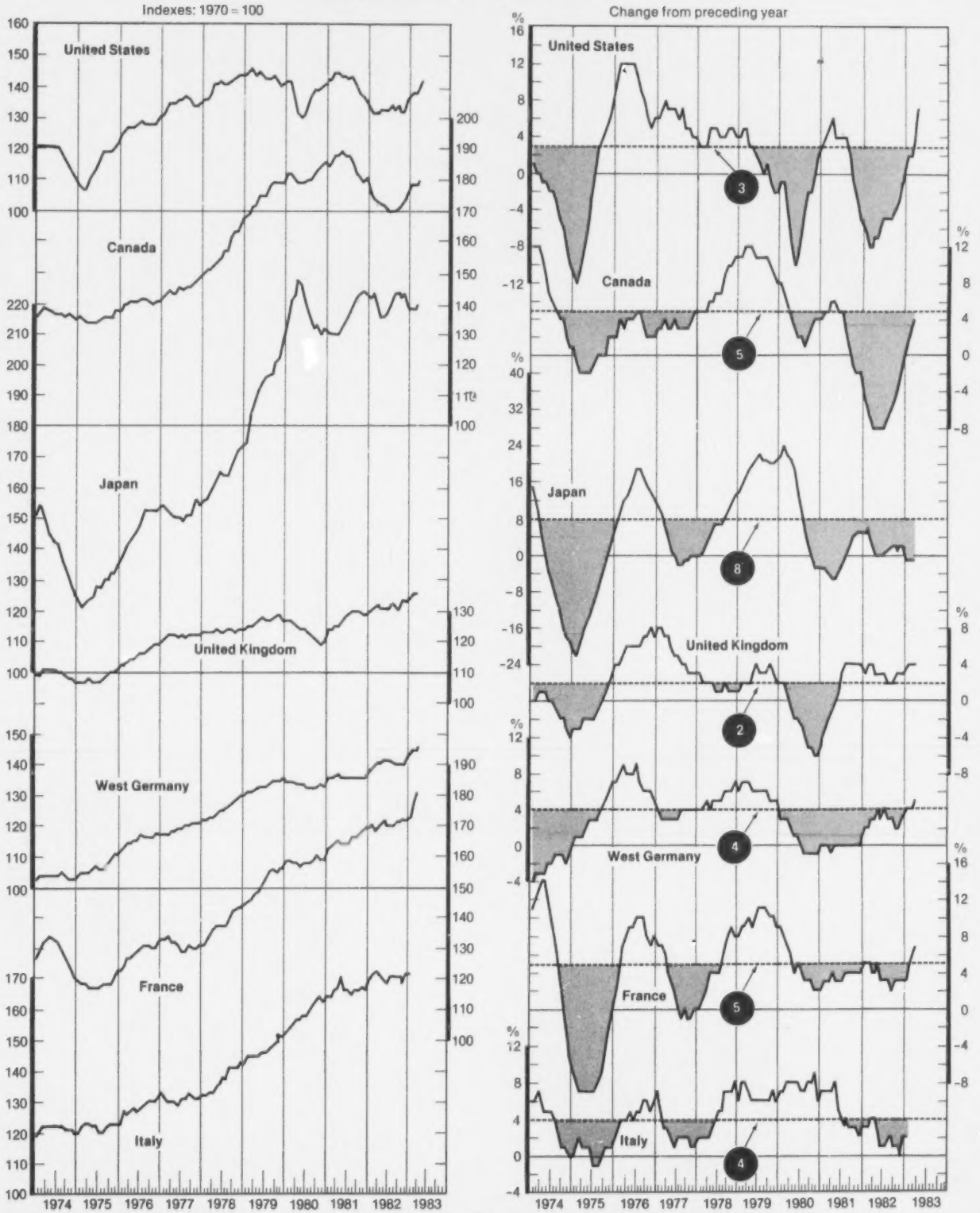
Leading Business Cycle Indexes



Note: Circled numbers in right-hand panel indicate long-run real growth rates during 1966-1976

Source: The Conference Board

Recovery Underway

The leading indexes for the U.S., Canada, France, the U.K. and West Germany continue to support the conclusion that a recovery from the recession is under way. The indexes in these countries are now advancing rapidly, in a pattern that seems to be spreading. Only Italy and Japan have not yet joined the procession, but even in those two countries the early-moving indicators are showing a bit more strength than a month or two ago.

Leading Indicators Point The Way

In recent months we have been witnessing a classic example of how the leading indicators, as reported in the *Scoreboard*, help detect an economic recovery at an early date. In April a year ago, our composite leading index for the United States was declining at an annual rate of -8%. This April, it was rising at an 11% rate. The transformation came about quite smoothly, as the chart on the back page shows. The last negative rate was recorded in November 1982, and the growth rates have moved up steadily since then. The April figure is higher than any we have seen since the recovery from the 1973-75 recession.

How does this record compare with that for the measures of economic performance that are commonly relied upon to tell when a recession has ended and a recovery has begun? These are the so-called coincident indicators, and they include real GNP, industrial production, employment and unemployment, real income and sales. A composite of these measures for the U.S., also shown on the back page, was declining at an annual rate of -7% in April a year ago, nearly the same as the leading index. By this April it was rising at a 1% rate, and the last negative rate was recorded in February. In short, the leading index reached a comparable point about three months earlier than the index of overall economic performance. In addition, since then the leading index has had a far more striking acceleration.

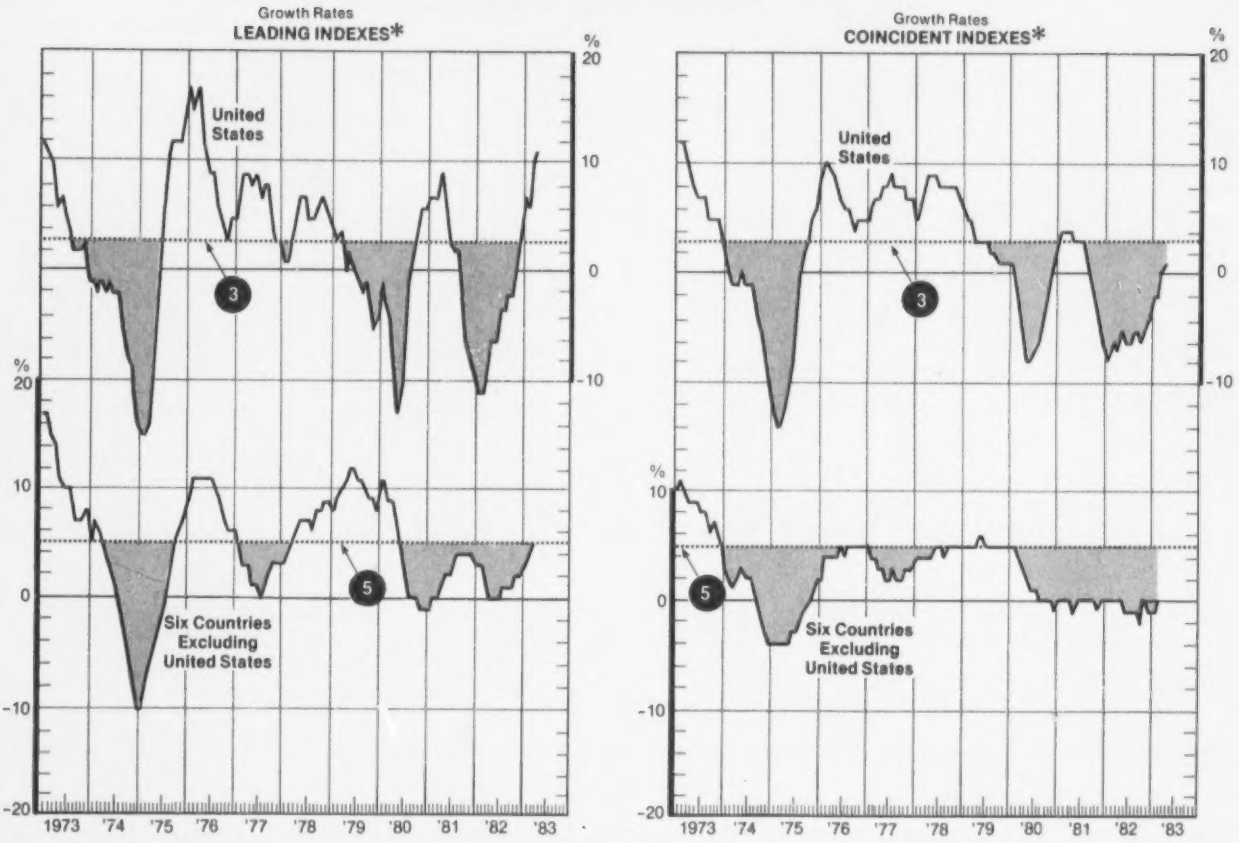
Similarly, for the six countries other than the United States, the leading index growth rate in March (the latest month available) was 5%. This is well above the 2% rate in March 1982, and also above the zero rates recorded from April through July last year. On the other hand, the coincident index for the six countries was in negative territory through February, and only moved up to a zero rate in March. For the six countries as a group, therefore, the evidence of recovery is weaker than for the United States. But such evidence is to be found in the leading indicators. The 5% growth rate for March in that index is the best showing since May 1980, when the industrial world's latest bout with recession began. As Shakespeare might have put it, had he known about leading indicators:

"How far that little candle throws its beam!
So shines a leading indicator in an anxious world."

Leading Indexes, Seven Countries, 1981-82

		U.S.	Canada	Japan	U.K.	West Germany	France	Italy	7 Countries	6 Countries ex. U.S.	4 Countries, Europe
						Indexes, 1970 = 100					
Jan.	82	133	176	223	130	138	169	169	150	170	150
Feb.	82	132	174	224	131	139	170	170	150	171	151
Mar.	82	132	173	220	132	140	168	171	149	170	151
Apr.	82	133	172	216	131	140	170	172	149	169	152
May	82	133	172	216	131	141	172	171	150	169	152
June	82	133	170	217	131	141	170	168	149	169	151
July	82	134	170	220	132	141	170	169	150	170	152
Aug.	82	133	170	224	131	141	171	170	150	171	152
Sept.	82	133	171	224	132	140	171	170	150	171	152
Oct.	82	132	173	223	133	140	172	170	150	171	152
Nov.	82	132	175	224	134	140	173	168	150	172	152
Dec.	82	135	176	220	134	142	173	171	152	172	154
Jan.	83	138	179	219	135	144	174	171	154	173	155
Feb.	83	138	179	219	136	144	178		154	174	157
Mar.	83	140	180	220	136	146	181		156	175	159
Apr.	83	142									
						Percent Change from Preceding Year					
Jan.	82	—6	—5	5	3	2	5	3	—2	3	3
Feb.	82	—6	—6	6	4	2	5	3	—2	3	4
Mar.	82	—8	—7	4	4	3	4	4	—3	2	4
Apr.	82	—7	—8	1	3	3	4	4	—3	2	4
May	82	—7	—8	0	3	4	5	3	—3	1	4
June	82	—6	—8	0	3	3	3	1	—3	1	3
July	82	—5	—8	1	3	4	3	1	—2	1	3
Aug.	82	—5	—7	2	2	3	3	2	—2	1	3
Sept.	82	—5	—6	2	2	3	2	1	—2	1	2
Oct.	82	—4	—4	1	2	2	3	1	—1	1	2
Nov.	82	—3	—3	2	3	2	3	0	—1	2	2
Dec.	82	—1	—1	0	3	3	3	2	0	1	3
Jan.	83	2	2	—1	4	4	3	2	2	2	3
Feb.	83	2	3	—1	4	4	5		2	3	4
Mar.	83	5	4	—1	4	5	7		4	3	5
Apr.	83	7									
						Ten-Year Annual Growth Rate, Percent					
1966-76		3	5	8	2	4	5	4	4	5	4

Growth Rates in Leading and Coincident Indexes
Seven Countries, 1973-83



Arrows indicate rate of change, 1966-76, in the index and in real GNP. The six countries are Canada, United Kingdom, West Germany, France, Italy and Japan.

*Annual rate based on ratio of current month's index to average index over the preceding 12 months.

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A Monthly Report from The Conference Board

INTERNATIONAL ECONOMIC SCOREBOARD

The Conference Board

JULY, 1983

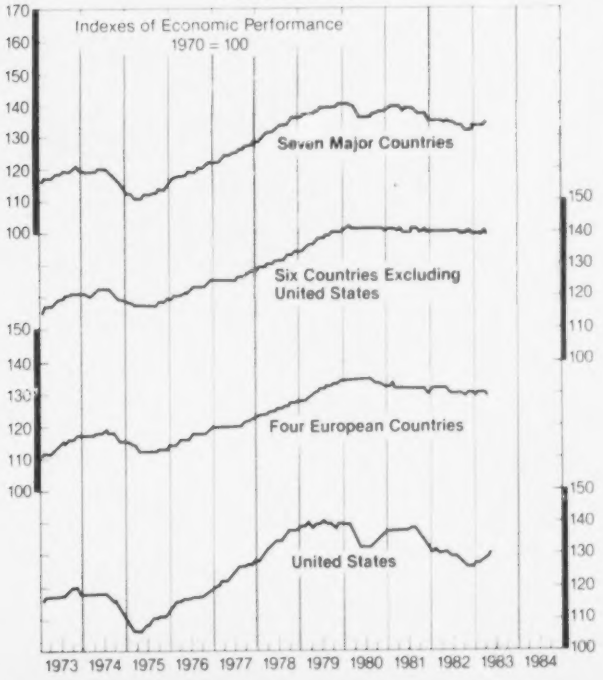
SUMMARY

The leading indexes for the United States and Canada have shifted into high gear, while more moderate recovery holds sway in the United Kingdom, West Germany and France. Weakness continues in Japan and Italy, however. In short, the locomotives have begun to pull the world economy out of recession, but some countries have not jumped aboard the train—at least not yet. For the seven countries as a whole, the leading index has just reached its long-term growth rate of four percent. The seven country index of economic performance—a composite of output, employment, income and sales—has begu to rise, and is about where the leading index was last winter.

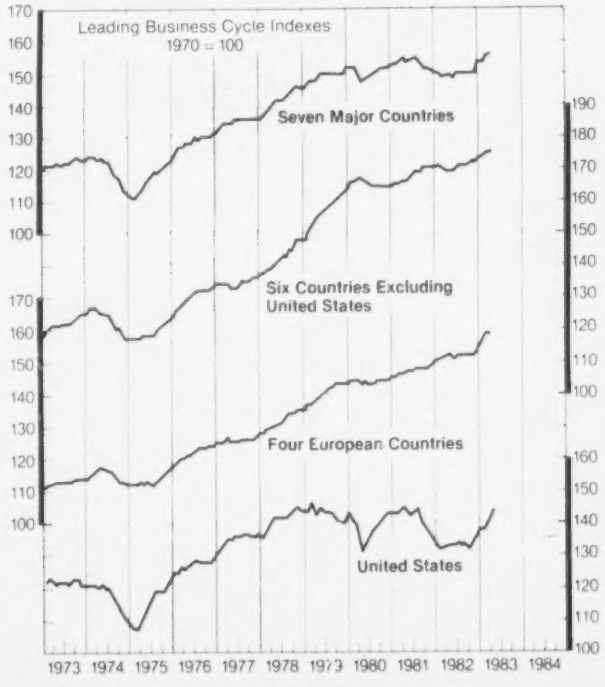
		*Indexes of Economic Performance Growth Rates**			*Leading Business Cycle Indexes Growth Rates**				
	Growth Rates, 1966-76	*6 mos. ago*	*3 mos. ago*	*Latest month*	*6 mos. ago*	*3 mos. ago*	*Latest month*	*Current Reading on the Cycle*	*Latest Month Covered*
	annual rates, percent								
United States	3	-5	-2	3	-1	6	13	Strong expansion underway	May
Canada	5	-8	-3	1	-1	11	14	Strong expansion underway	April
Japan	8	1	1	1	1	-4	-6	Weakness continuing	April
United Kingdom	2	0	-1	0	3	5	3	Recovery getting underway	April
West Germany	4	-3	-1	-2	-1	5	6	Recovery getting underway	April
France	5	3	2	2	2	3	8	Expansion continuing	April
Italy	4	-3	-4	-4	1	1	2	Contraction stopping	Feb./Jan.
7 countries	4	-4	-1	1	-2	2	4	Recovery underway	April
6 countries excl. U.S.	5	-2	-1	-1	1	2	3	Contraction stopped	April
4 European countries	4	-2	-1	-2	2	3	5	Contraction stopped	April

* Annual rate based on ratio of current month's index to average index over the preceding 12 months.

Where We Are


Indexes of Economic Performance
1970 = 100
Seven Major Countries
Six Countries Excluding United States
Four European Countries
United States
1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

Where We're Headed


Leading Business Cycle Indexes
1970 = 100
Seven Major Countries
Six Countries Excluding United States
Four European Countries
United States
1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

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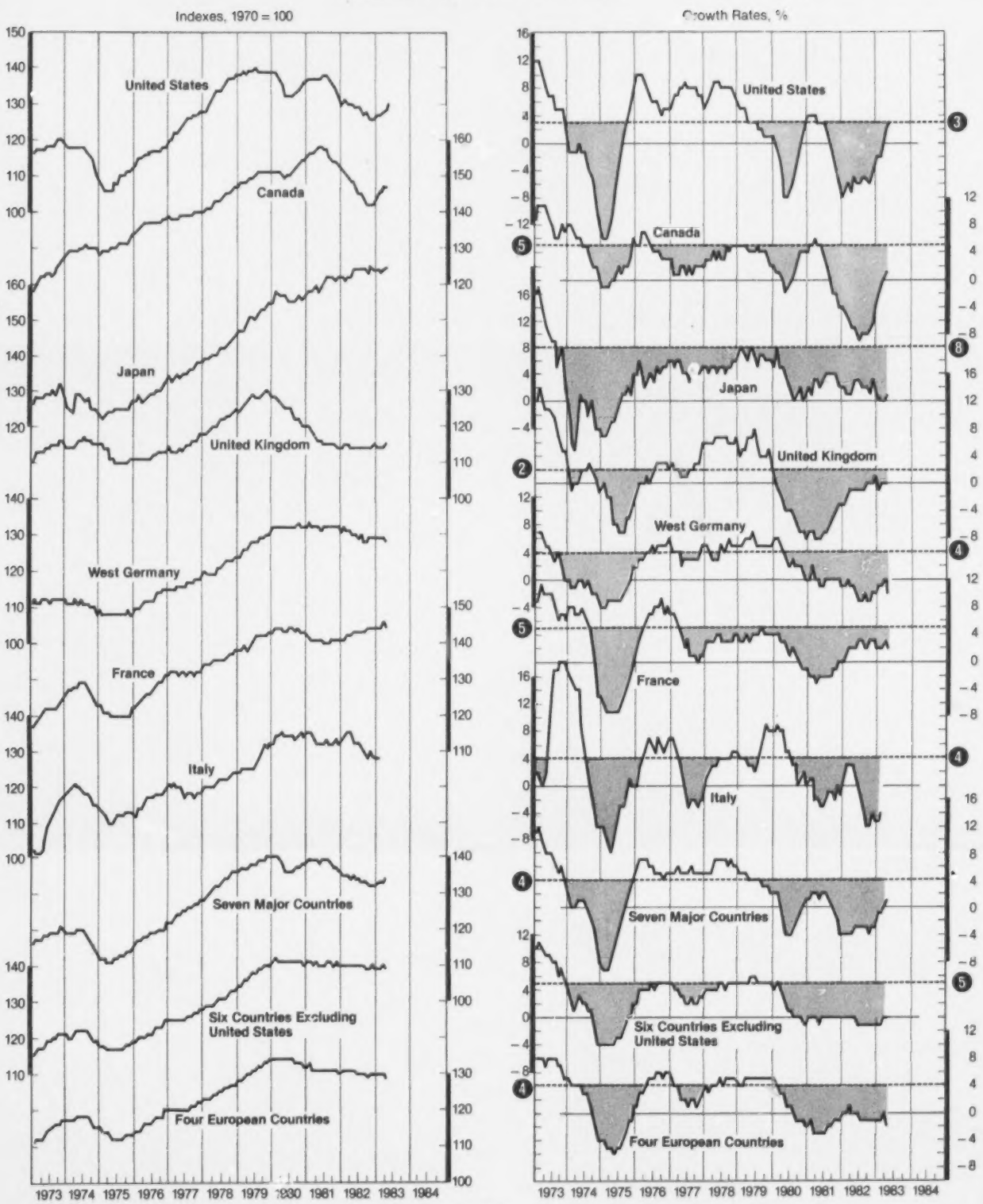
Where We Are

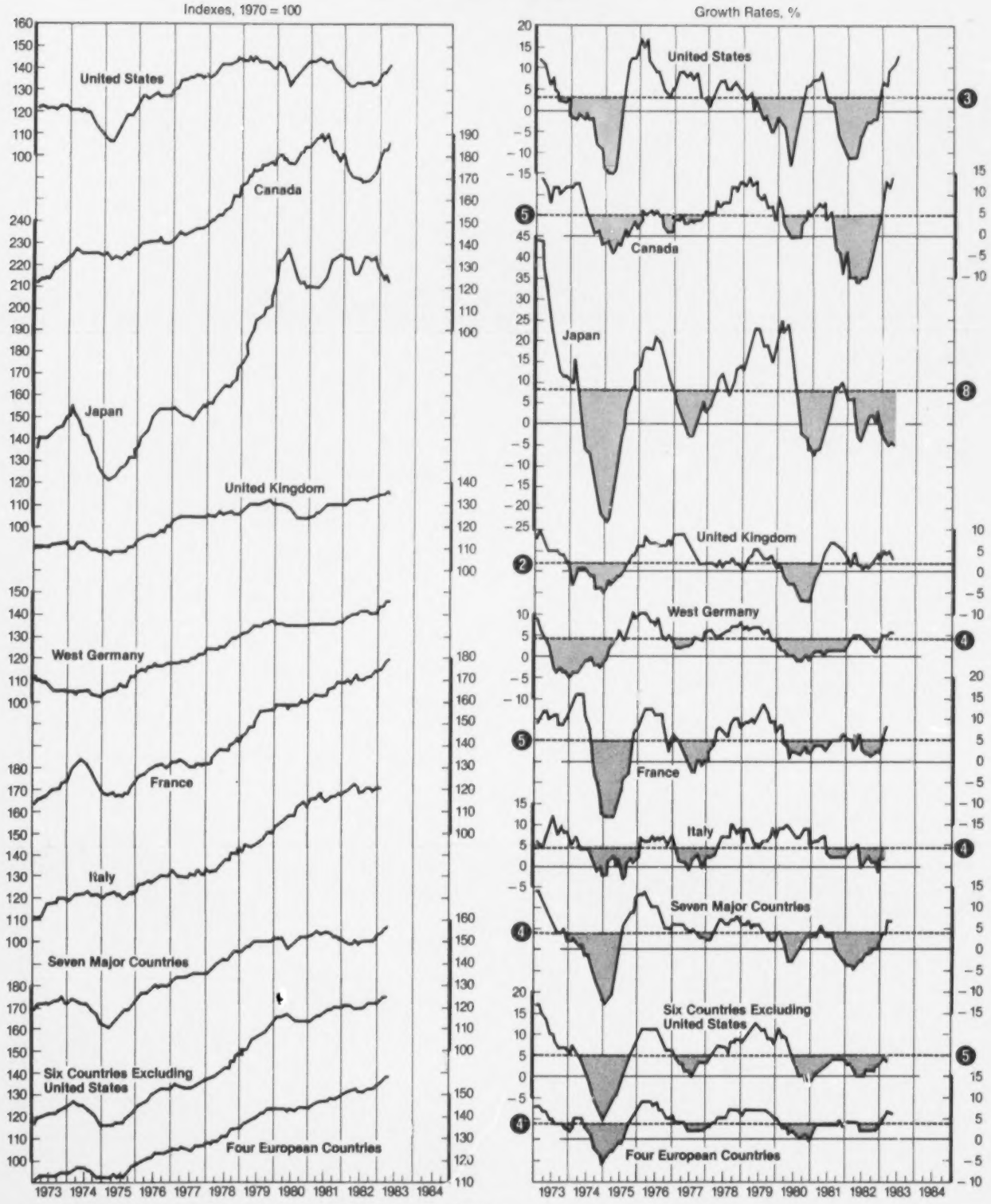
Indexes of Economic Performance



Note: Horizontal dashed lines are average growth rates for 1966–76 in the index and in real GNP
Source: The Conference Board

Where We're Headed

Leading Business Cycle Indexes



Note: Horizontal dash lines are average growth rates for 1966–76 in the index and in real GNP

Source: The Conference Board

INDEXES, SEVEN COUNTRIES, 1982-83

		U.S.		Canada		Japan		U.K.		West Germany		France		Italy		7 Countries		6 Countries ex U.S.		4 Countries Europe	
		Indexes, 1970 = 100																			
		Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.
Oct.	82	126	132	144	171	163	223	114	132	128	140	144	172	128	170	132	150	139	171	129	152
Nov.	82	126	133	144	172	165	224	114	133	129	140	144	173	130	169	132	150	140	171	130	152
Dec.	82	126	135	144	176	164	219	115	134	129	142	144	173	129	171	132	152	139	171	130	153
Jan.	82	127	138	146	181	164	216	114	135	129	144	144	174	128	171	133	153	139	172	130	155
Feb.	83	127	138	146	183	163	214	114	135	129	144	145	176	128		133	154	139	173	130	156
Mar.	83	128	140	147	183	164	215	114	136	129	146	146	178			133	156	140	174	130	158
Apr.	83	129	142	147	186	165	212	115	135	128	146	145	179			134	157	139	174	129	158
May	83	130	144																		
		Growth Rates, Percent																			
Oct.	82	-6	-2	-8	-1	1	1	0	3	-3	1	3	2	-6	1	-4	0	-2	1	-1	2
Nov.	82	-5	-1	-7	1	2	3	0	4	-2	1	3	3	-4	-1	-3	0	-1	2	-1	2
Dec.	82	-4	3	-6	5	1	-2	1	3	-2	3	2	2	-5	2	-3	2	-1	2	-1	3
Jan.	83	-2	7	-3	11	1	-4	-1	5	-1	5	2	3	-5	2	-1	4	-1	2	-1	4
Feb.	83	-2	6	-1	13	0	-5	0	4	-1	5	2	6	-4		-1	4	-1	3	-1	5
Mar.	83	0	9	0	12	0	-4	0	5	0	6	3	7			0	7	0	4	0	7
Apr.	83	2	11	1	14	1	-5	0	3	-2	6	2	8			1	7	0	3	-2	6
May	83	3	13																		
		Ten-Year Annual Growth Rate, Percent																			
1966-76		3	3	5	5	8	8	2	2	4	4	5	5	4	4	4	4	5	5	4	4

NEWLY REVISED SCOREBOARD

With this issue, *International Economic Scoreboard* is substantially revised and expanded. The most important change is that IES will be published every month rather than bimonthly. Second, every other issue of the *Scoreboard* will be expanded to six pages to include a short interpretative article.

Third, each report will now include indexes of economic performance for the major industrial nations, in addition to the leading indexes that have always been the main statistical building blocks of the analysis. These economic performance indexes are composites of such series as real GNP, industrial production, employment and sales—what analysts call "coincident" series, because they *define* the business cycle.

The leading indexes are composites of such series as new orders, construction contracts, corporate profits and stock prices—indicators that usually anticipate changes in production and employment by several months. Thus the indexes of economic performance tell us the current status of the business cycle, i.e., where we are, while the leading indexes tell us where the economy is headed.

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These indexes for the seven major industrial nations were developed by Geoffrey H. Moore and Philip A. Klein, and are maintained by the Center for International Business Cycle Research at the Columbia Business School. (The U.S. leading index used here differs slightly from the index reported monthly by the U.S. Dept. of Commerce.) To facilitate analysis the indexes are adjusted so their long-run growth rates are equal to those in real GNP in the country concerned during 1966-1976. These growth rates are shown at the bottom of the table on the back page and by horizontal lines on the right panel of the charts on pages 2 and 3.

For More Information and Instruction

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A Monthly Report from The Conference Board

INTERNATIONAL ECONOMIC SCOREBOARD

The Conference Board

AUGUST, 1983

SUMMARY

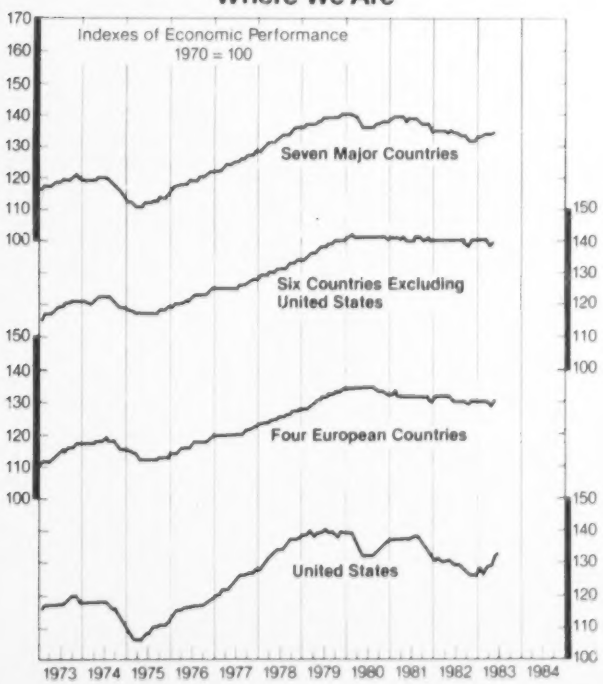
R4105-6

The leading indicators are registering strength in every country except Japan, where weakness has prevailed since last autumn. Strength in the leaders is usually a prelude to strength in the economic performance indexes, which cover the most comprehensive measures of output, employment, real income and sales. Healthy advances in these measures are clearly visible in the U.S. and Canada. Elsewhere the picture is mixed, with weakness in Japan and Italy, and only sluggish growth in the United Kingdom, West Germany and France. Nevertheless, for the seven countries as a group, the summary indexes are more clearly on a recovery track than they were six months ago or even three months ago.

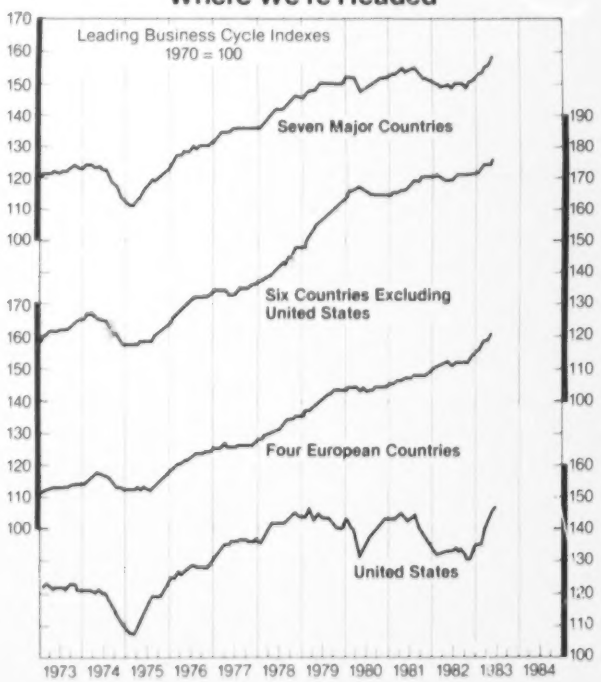
		*Indexes of Economic Performance Growth Rates**			*Leading Business Cycle Indexes Growth Rates**				
	Growth Rates, 1966-76	*6 mos. ago*	*3 mos. ago*	*Latest month*	*6 mos. ago*	*3 mos. ago*	*Latest month*	*Current Reading on the Cycle*	*Latest Month Covered*
				annual rates, percent					
United States	3	-5	0	6	1	9	16	Strong expansion underway	June
Canada	5	-7	-1	3	1	13	15	Strong expansion underway	May
Japan	8	2	0	-1	3	-5	-4	Weakness continuing	May
United Kingdom	2	0	1	1	4	4	3	Recovery getting underway	May
West Germany	4	-2	-1	0	1	5	7	Recovery getting underway	May
France	5	3	2	1	3	10	14	Leaders strong; economy sluggish	May
Italy	4	-6	-5	-5	1	2	7	Leaders reviving; economy weak	Apr./Mar.
7 countries	4	-3	-1	2	0	4	10	Recovery underway	May
6 countries excl. U.S.	5	-1	0	0	2	3	5	Contraction stopped	May
4 European countries	4	-1	0	0	2	6	8	Contraction stopped	May

* Annual rate based on ratio of current month's index to average index over the preceding 12 months.

Where We Are



Where We're Headed



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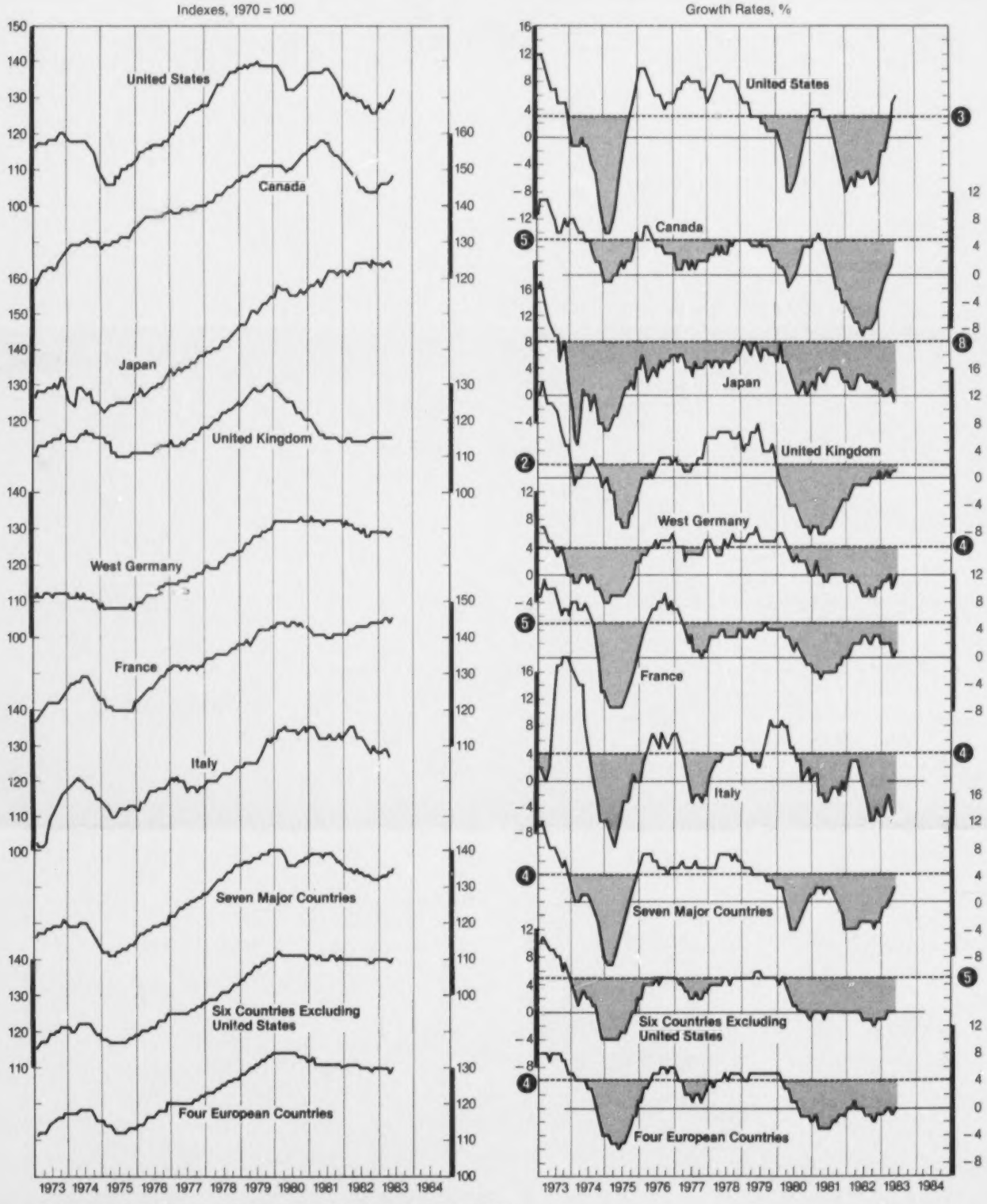
Where We Are

Indexes of Economic Performance

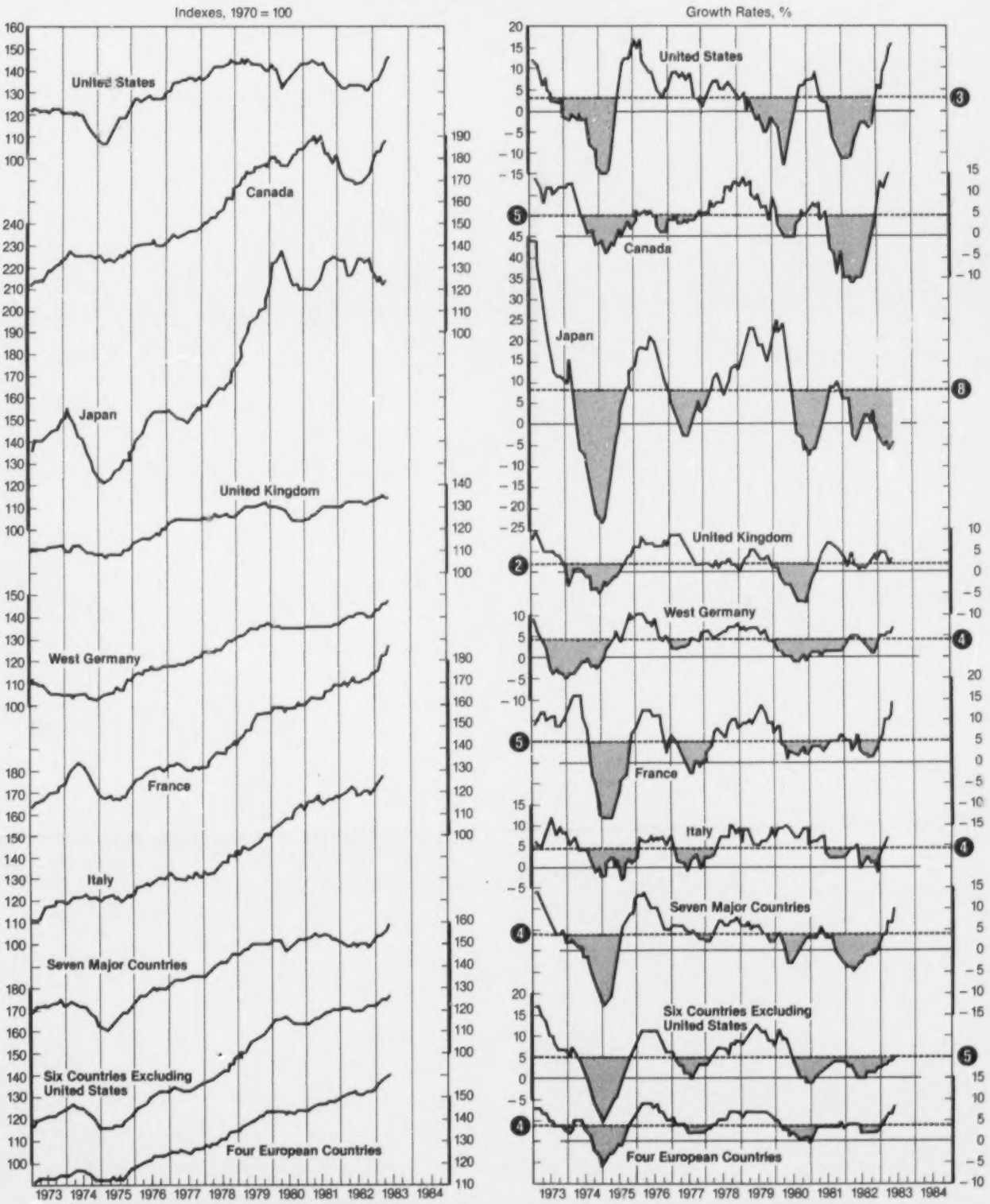


Note: Horizontal dashed lines are average growth rates for 1966–76 in the index and in real GNP

Source: The Conference Board

Where We're Headed

Leading Business Cycle Indexes



Note: Horizontal dash lines are average growth rates for 1966-76 in the index and in real GNP
Source: The Conference Board

INDEXES, SEVEN COUNTRIES, 1982-83

		U.S.		Canada		Japan		U.K.		West Germany		France		Italy		7 Countries		6 Countries ex U.S.		4 Countries Europe	
		Indexes, 1970 = 100																			
		Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.
Oct.	82	126	131	144	171	163	223	115	132	128	140	144	172	128	170	132	149	139	171	129	152
Nov.	82	126	131	144	172	165	224	115	133	129	140	144	173	130	168	132	150	140	171	130	152
Dec.	82	126	134	144	176	164	219	115	133	129	142	144	174	129	171	132	151	140	171	130	154
Jan.	82	128	136	146	181	164	216	115	134	129	144	144	176	128	174	133	153	140	172	130	156
Feb.	83	127	136	146	183	163	214	115	134	129	144	145	180	129	175	133	153	140	173	130	157
Mar.	83	128	139	146	183	164	215	115	135	129	146	145	182	129	177	134	155	140	174	130	158
Apr.	83	129	142	147	186	165	212	115	134	128	146	144	183	127		134	156	139	174	129	159
May	83	131	145	148	188	163	214	115	134	129	147	145	187			135	159	140	176	130	160
June	83	132	146																		
		Growth Rates, Percent																			
Oct.	82	-7	-4	-8	-1	1	1	0	2	-3	1	3	2	-6	1	-4	-1	-2	1	-2	2
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Apr.	83	2	12	1	14	1	-6	1	2	-2	6	0	11	-5		1	7	0	4	-1	7
May	83	5	15	3	15	-1	-4	1	3	0	7	1	14			2	10	0	5	0	8
June	83	6	16																		
		Ten-Year Annual Growth Rate, Percent																			
1966-76		3	3	5	5	8	8	2	2	4	4	5	5	4	4	4	4	5	5	4	4

THE INTERNATIONAL ECONOMIC INDICATOR SYSTEM

Beginning in mid-1983, each issue of the *Scoreboard* includes indexes of economic performance for the major industrial nations, in addition to the leading indexes that have always been the main statistical building blocks of the analysis. These economic performance indexes are composites of such series as real GNP, industrial production, employment and sales—what analysts call "coincident" series, because they *define* the business cycle.

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DEVELOPING LEADING INDICATORS FOR PACIFIC BASIN COUNTRIES

In the past decade, as readers of the *Scoreboard* will appreciate, much progress has been made in adapting traditional techniques for monitoring business cycles in the United States to analyzing recessions and recoveries in other countries. Increasingly, interest in cyclical fluctuations has spread from what happens in Europe to the countries of the Pacific Basin. Japan, long in the forefront of this interest, has grown increasingly important both as a producer and a consumer of world output, but other countries in the region have been developing industrially as well. They have therefore become bigger markets for western output as well as suppliers of a larger volume of western-type products and components, while continuing their long-time importance as sources of critical raw materials. The foreign trade of the Pacific Basin countries increased dramatically during the 1970's.

In view of this trend, the Center for International Business Cycle Research has begun to develop a system of leading indicators for countries in the Pacific area. The work has proceeded far enough to show that such a system is both feasible and worthwhile. Although we are not quite ready to launch the system on a current basis—we have studied only five countries so far—some of our findings are of interest.

1. After allowing for the growth trend, it is clear that the economies of Japan, South Korea, Taiwan, Australia and Malaysia have experienced cyclical fluctuations similar to those in North America and Europe.
2. These five countries have generally followed the United States into as well as out of recession. In other words, the U.S. economy is a leading indicator with respect to most of the Pacific Basin countries. The typical interval between a turning point in the United States and the corresponding turn in the other countries is: Japan, 9 months; South Korea, 7 months; Taiwan, 0 months; Australia, 4 months; and Malaysia, 11 months.
3. Within each country, the leading indicators behave in much the same fashion as in the United States. Experimental composite indexes constructed from leading indicators have typically turned down or up ahead of the total economic activity by 7 months in Japan, 4 months in South Korea, and 2 months in Australia and Taiwan. Indexes for Malaysia are not yet available.
4. Exports from the rest of the world to the Pacific Basin countries are affected significantly by the economic cycles in those countries. On average, the growth in world exports to the Pacific countries has been much larger during upswings in their economies than during downswings (Table 1). Hence it is important to monitor these countries' cycles in order to gauge their potential as markets. The *Scoreboard* already does this with leading indexes for Japan; other countries in the Pacific area will be included when sufficient data become available.
5. The Pacific Basin countries' own ability to sell in world markets likewise is affected significantly by the state of the business cycle in the industrial countries. Exports from each of the five Pacific countries are likely to grow several times as fast when the industrial countries are expanding as when they are in a downswing (Table 2). The composite indexes already shown in the *Scoreboard*, therefore, have an important bearing on the economic prospects for the Pacific Basin countries.

Table 1

Effect of Economic Cycles in Pacific Basin Countries on World Exports 1951-80

	Average Annual Growth ($ bill.)	
World Exports to	*During Upswings*	*During Downswings*
Japan	$18.6	$4.4
South Korea	3.5	2.1
Taiwan	1.8	0.9
Australia	1.7	-0.3
Malaysia	2.2	0.0

Note: The cycles in each country are defined in terms of measures of economic performance after allowance for their long-run growth trends.

Table 2

Effect of Economic Cycles in Major Industrial Countries on Pacific Basin Exports 1951-80

	Average Annual Growth ($ bill.)	
Exports from	*During Upswings*	*During Downswings*
Japan	$12.3	$5.0
South Korea	1.7	0.5
Taiwan	2.5	0.7
Australia	2.1	0.6
Malaysia	1.8	0.1

Note: Cycles in the industrial countries are measured by the composite index of economic performance for seven major countries, as reported in the *Scoreboard, after allowance for its long-run growth trend.*

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